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ABSTRACT

This bimonthly newsletter offers a forum for discussion of research library issues and actions. Regular features include: Current Issues; Office of Scientific and Academic Publishing; Federal Relations; Coalition for Networked Information; Office of Management Services; ARL Activities; and ARL Calendar. Newsletter highlights include the following articles: include: "The Future of Publishing" (Joseph J. Esposito); "Distance Learning and Libraries" (Thomas W. Shaughnessy); "Computers and Scholarship: A Pseudo-Hypertext in Ten Parts" (Stephen Hilliard); "ARL Promotes Copyright Awareness"; "Commerce Proposes Copyright Reform"; and "The New Liberal Arts" (James J. O'Donnell). (MAS)

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ARL: A Bimonthly Newsletter of Research Library Issues and Actions, 1995.

G. Jaia Barrett, Editor

Numbers 178-183
January-December 1995

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Office of Educational Research and Improvement
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A BIMONTHLY NEWSLETTER OF RESEARCH LIBRARY ISSUES AND ACTIONS

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Current Issues

THE FUTURE OF PUBLISHING

by Joseph J. Esposito, President, Encyclopedia Britannica North America

Editor's Note: The following is excerpted from a presentation made at the Flair Symposium on the Future of Publishing, November 11-12, 1994, at the Ransom Humanities Research Center, University of Texas.

When publishers try to anticipate what their future will look like, they have to take into account such things as competing media, discretionary income and time, the changing nature of the professions, literacy, new competitors such as Microsoft and TCI, and the Robinson-Patman Act. With this many variables, a linear predictive model simply won't work.

But we have to start somewhere. Let's focus on the book industry. The most important thing to be said about the book industry is that it is very small. The total sales of U.S. book publishers last year were about $20 billion. That may sound like a lot of money to a starving author, but in the scheme of things, it is minuscule. Twenty billion is about the cost of 23 Stealth bombers; it is about equal in size to the U.S. sausage industry; in fifteen years, the Microsoft Corporation has grown to be about one-fourth the size of the entire book industry; $20 billion makes books smaller than AT&T, IBM, and several oil companies; if the entire industry disappeared tomorrow, I'm not sure the Department of Commerce would notice.

Not all books are created equal, of course. I will make the assumption that the attendees of this conference are primarily interested in works of intellectual merit. That's a small number of dollars. From the $20 billion total we have to subtract $6 billion for books for schools and public libraries and another $2.5 billion for books for higher education, which are essentially secondary material. The professional segment, which is small but highly profitable, publishes books of little interest outside a narrow field. That leaves university presses, which are tiny, and general consumer publishers. The consumer segment, depending on who's talking, is about one-third to two-fifths of the total industry, and includes such categories as mass market romances, celebrity biographies, and children's books. We can all play snob and decide which trade books are serious and which are fluff. Is Anna Quindlen high brow or middle brow? How about John Updike? However, I don't think that is productive. What is clear is that the books serious readers care about constitute a tiny portion of the whole, perhaps $500 million and certainly not more than $1 billion. At $500 million, that is 2.5% of the total industry and .0078% of the gross domestic product. The future of publishing is not so much bleak as it is small.

The various segments of the book industry will move into the future in different ways. Professional publishing has already been seriously impacted by digital media, especially online services; that trend will accelerate. But whereas current professional information services are large in scope, in the future such technologies as distributed processing, client-server architecture, and of course, the Internet, may reduce the critical mass necessary to get into the online game. I anticipate we will see more professional publishers in the future, not fewer.

School publishing will be exactly what taxpayers want it to be. Educators are excited by the prospect of interactive instructional materials, especially products that are delivered online, but the fact is that the hardware isn't in place to make this possible and no one seems willing to shoulder the cost. It could be that the future of school publishing depends largely

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on the political prospects of Al Gore. If an information superhighway is built, and if— a big if— it extends into the schools, we can expect to see the traditional textbook market give way to materials produced in multiple media: some print, an online component, videotape, and especially for younger children, hands-on learning materials, which are called "manipulables" in the trade. These innovative instructional materials will be part of an overall retooling of the classroom, an important part of which will be the training of teachers. Our company has bet heavily that teacher training increasingly is going to be the responsibility of publishers. Thus the future of publishing in the schools may involve the packaging of the entire classroom experience. From there it is a short jump to publishers opening up their own schools.

So, for publishers, the word "future" is a plural. But what of the future of intellectually distinguished works? Will this segment find its own path to the future, or will it piggyback on the developments of other segments? Let's break this segment into three parts and take a look.

First, stepping away from books for a minute, we have academic journals. This category is dominated, at least in terms of dollars, by three or four publishers that concentrate in the areas of science, technology, and medicine. This segment, as we know it today, was essentially invented by the late Robert Maxwell, whose entrepreneurial insight was that libraries would pay almost any price for premier publications. He was right, and he was hated for it.

The backlash against Maxwell's paradigm is getting stronger, and with the aid of electronic publishing over the Internet, there is a reasonable chance of restructuring journal publishing by the end of the century. The critical drivers in this area are universities themselves, who may begin to assert more control over the publication of the research performed at their institutions. The copyrights to these works increasingly may come to reside at university presses, whose job it will be to manage Internet servers. As we go into the next century, journals publishing will be less profitable than it is today. It is an open question whether journals will flourish in an environment that is hostile to the creation of capital.

The second area is university press publishing itself. University presses nowadays do a lot of things; ten years from now these publishers may be very different. One thing is certain: the move by university presses into general trade publishing will disappear by the end of the century for the simple reason that they will lose money at it. My advice to university presses is: get out of this area now. The trade publishers in NY are very, very good at what they do, and it is naive to believe that a university press in Berkeley or Lincoln or even Cambridge can compete with them.

It is the scholarly monograph that hurts so much to contemplate. Does it have a future? Print runs for some titles are now down to as few as 500 to 700 copies; the market continues to contract. Inasmuch as there is a long tradition of subsidizing monographs, I am sure some titles will continue to be published, but the outlook is not good. Nor does electronic publishing seem very promising, for two reasons: the discursive text of a typical scholarly monograph works best in print, and in any event, it is the fixed, not the variable, costs that are undermining the monograph, and the fixed costs do not vary much between print and electronics. It is my view that the notion, dear to college administrators, that university presses can be self-sustaining is a pipe dream.

This leaves us with the quality segment of the trade book business. Here I am optimistic. Although the superstore chains such as Barnes & Noble and Borders are primarily being built to sell remainders and bestsellers, stocking a broad selection of books is important to their image. Good books will find their way onto the shelves. And they will continue to be published, both by small independent presses and by sneaky editors in the large commercial houses. There is also little reason to believe that interactive media will make any significant inroads with this audience (at least outside the workplace) because the closely reasoned text that they enjoy is precisely what digital media is not good at. For some time to come, we can expect books to be the thinking person's medium.

There is so much hype surrounding electronic media that it is good to slow down once in a while for a reality check. We have already looked at the myth that electronic publishing alone will destroy print, but perhaps more insidious is the idea that multimedia is somehow superior to text. If this were true, all music would be opera. Except for kids, most publishing will continue to be text publishing for the simple reason that words can do things that images and sound cannot. The text may be hypertext, and we may be seeing more and more of it on a computer screen, but the primacy of text is just about the one thing that publishers can count on in the future.

What is for me the most intriguing question, whose answer may not be known for 10, 20, maybe 100 years, is how digital media will change our understanding of what an idea is. A paragraph is a creature of the print medium — obviously. But is the consciousness that creates paragraphs and thinks in paragraphs also a function of print? A closely reasoned argument proceeds step by step, word by word. Is such an argument an outgrowth of the linearity of print? I don't know the answer to that question, but what is clear is that if the future of publishing is increasingly going to be an electronic future, we will have to develop a poetics of new media. This is one publishing project whose time has come. The one outstanding question is whether we will publish it in print or electronic form.

Digital Technology for Access and Storage

The National Agricultural Library (NAL) and the National Archives and Records Administration (NARA) recently took noteworthy steps in the deployment of digital technology. On January 1, NAL, the largest agricultural library in the world, designated *electronic* information the preferred medium for library materials. NAL's goal is to make its services and collections available in various electronic formats worldwide.

To achieve this goal, NAL has outlined a series of steps: tie in to electronic networks worldwide to provide seamless access to information; shift and add resources to acquire, process, and make available electronic data; work closely with other world agencies and libraries to emphasize electronic information; and convert its own publications from print to electronic media.

Details of the NAL effort are contained in *The Electronic Information Initiative: Phase I Final Report: A Key Success Factor in the NAL Strategic Plan*. Copies of the report are available via anonymous FTP at cliff.nalusda.gov in the directory /pub/elec.init as filename eii-rpt.txt.

In a change in policies concerning electronic media, NARA issued a new policy that accommodates CD-ROMs. Until recently, NARA accepted permanent files from federal agencies only if they were on an accepted archival medium, that is, paper or photographic film. The new policy reflects a partial shift in the preservation philosophy concerning electronic media.

NARA will now accept CD-ROM as a transfer medium of permanent federal agency records. However, because of the lack of standards for archival quality of CD-ROMs, NARA will not accept CD-ROMs as a medium for permanent storage. Once it receives permanent records on CD-ROM, NARA will copy them onto 3480 class magnetic tape cartridges for permanent storage.

The 3480 class magnetic tape cartridges have several special features which allow this system to be considered archival. The tape drive was designed to read the tapes even after a loss of as much as 75% of their original signal output. Although the tape system was designed to be very robust, long-term usability of the digitally stored information requires systematic maintenance and monitoring of data degradation, system component upgrade, eventual migration to newer technologies, and implementation of relevant information technology standards as they are developed.

Details of the new policy are found in NARA Bulletin 94-4, *Use of Compact Disc-Read Only Memory (CD-ROM) Medium to Transfer Records to the National Archives.* For additional information, contact Fynette Eaton at (301) 713-6630. - *Jutta Reed-Scott*

Library & Academic Communities Support Rehearing of Texaco Fair Use Case

Fifteen library and academic institutions joined together to support Texaco 's petition to rehear the Second Circuit Court's decision of October 28, 1994 in *American Geophysical Union v. Texaco,* 37 F.3d 881 (2nd. Cir. 1994).

The case is about whether the use of certain scientific and technical journal articles and letters by a Texaco researcher was a fair use. The statement filed on behalf of the library and academic institutions was prepared by ARL's attorney Ritchie Thomas of the firm Squire, Sanders, and Dempsey. The statement expresses support for Texaco's petition and, citing the legislative history (in which Thomas was an active participant), argues the following:

- "The making of single photocopies of journal articles is not inherently suspect or disfavored under the Copyright Act, when done for personal use in teaching, scholarship, or research; and
- "The majority erred in holding that Congress has suggested that royalty fees for photocopying should be recognized as part of the 'potential market for or value of' journal articles."

Copies of the amici statement and related court documents in this case are available on the ARL Gopher (arl.cni.org). Also, see page 4 for an overview of the Texaco case, and ARL 164 *and* ARL 167 *for background.*

Texaco Amici

Library Associations, Alliances and Learned Societies

American Association of Law Libraries
American Council of Learned Societies
Association of Academic Health Science Library Directors
Association of Research Libraries
Medical Library Association
National Humanities Alliance
Northern California Association of Law Libraries
Special Libraries Association

Universities and University Libraries

Duke University
Georgetown University
Michigan State University Libraries
University of California at Santa Barbara Library
University of Delaware Library
University of Missouri at Columbia Library
University of Texas System

RECENT COPYRIGHT DEVELOPMENTS IN THE COURTS

The progress and eventual outcomes of several court cases may significantly influence developmental directions for copyright compliance and intellectual property management in university and research institutions. ARL's interest in these copyright cases reflects its long-standing position as an advocate of the public interest in copyright and in maintaining a balance between the rights of the copyright owner and the rights of the user.

Court Addresses Fair Use in Texaco Case

On November 21, in supporting Texaco's petition for rehearing, ARL and other library and academic organizations continued their *amicus* stance on copyright issues raised by the corporate giant. Texaco's petition followed on the heels of the majority appeal decision handed down on October 28 by Judge Jon O. Newman. The U.S. Court of Appeals for the Second Circuit upheld the July 1992 ruling by Judge Pierre Leval that the photocopying of single articles in scientific and technical journals by employees at Texaco was not fair use under the U.S. copyright law, even though Texaco itself carried three subscriptions to the *Journal of Catalysis*, on which the case devolved.

Judge Newman agreed with the earlier district court decision but for somewhat different reasons. Some analysts feel that Judge Newman's characterization of the first fair use factor (character and nature of the use) may lay a foundation to generalize about the kinds of copying that routinely take place in not-for-profit research and educational institutions. In considering the first fair use factor, the court assessed Texaco's copying to be non-transformative (i.e., not directly resulting in the creation of new or enhanced knowledge). Judge Newman also deemed the copying to be archival because it assembled a set of papers for future reference (the same reason for which libraries buy subscriptions). And in a somewhat different slant, the court agreed with Texaco that even though the company's for-profit status was significant, the earlier Leval decision had placed undue emphasis on the for-profit nature of the corporation.

Judge Newman reinforced Judge Leval in affirming that the third fair use factor (amount and substantiality of the use) favored the copyright owners, in that an article is an entire work; Texaco employees were copying the whole rather than parts of it.

In considering the fourth fair use factor (effect on the marketplace) Judge Newman emphasized the Copyright Clearance Center as an established, viable mechanism for collecting license fees. Even though evidence of income loss from single articles was not particularly strong, owners have the right to seek licenses and to make markets, he wrote. Since the market exists, it is appropriate to consider the effect upon that market. The opinion clearly gives copyright owners an incentive to register with the CCC or like agencies.

The opinion may have possible implications for higher education users. While Judge Newman carefully limits the decision to the specific facts of the case, the decision does nonetheless raise questions in the minds of at least some copyright analysts about whether a non-profit status or affiliation would be enough to swing the first factor in the other direction. What are, after all, transforming uses? Judge Newman raised this very question by writing, "If the issue were open, we would seriously question whether fair analysis that has developed with respect to works of authorship alleged to use portions of copyrighted material is precisely applicable to copies produced by mechanical means ... Mechanical copying of an entire document, made readily feasible and economical by the advent of xerography, ... is obviously an activity entirely different from creating a work of authorship."

The decision also raises questions about the definition of the term "archival." Are items gathered for personal collections for future use, archival? For how long may they reside in such collections without being archival? Need they be organized so they are easily accessible (the working definition of "archival" as used by libraries)?

A discussion of the decision and its potential effects on higher education can be found on the World Wide Web site of Georgia Harper, Copyright Counsel for the University of Texas system (http://gold.utsystem.edu/OGC/Intellectual-Property/cprtindx.htm).

U.S. Case Re Coursepacks On Appeal

In the fall, ARL became a signatory to another *amicus* brief in a copyright case that addresses the rights of professors and students to make excerpts available, under fair use, of educational materials in connection with teaching and classroom studies, and to have copies of those materials reproduced for them by a third party.

The amicus brief was written by Professors of Copyright law including L. Ray Patterson, School of Law, University of Georgia. It was presented to the U. S. Court of Appeals for the Sixth Circuit in support of an appeal by Michigan Document Services, Inc. in the case *Princeton University Press v. Michigan Document Services*.

ARL became a signatory to the brief because the statement clearly articulates the constitutional foundation for copyright law in the United States and, in this context, elucidates the application of the Copyright law's four fair use factors. According to attorneys representing Michigan Document Services, "The Court's decision will have a significant impact upon the right of educators and stu-

dents to use excerpts of copyrightable works in connection with teaching, and will determine the extent of the right of fair use in educational environments." Additional information is available from MDS's attorney Susan M. Kornfield of the firm Bodman, Londley & Dahling, 110 Miller, Suite 300, Ann Arbor, Michigan 48104.

Australian Court Rules on Coursepacks

Last fall, Australian research universities won the first round of a coursepack case against Australian publishers and their licensing agency, Copyright Agency Limited (CAL). Production of "anthologies," or compilations of material drawn from several sources published in booklet form for distribution to students, may resume, provided that (a) they are made for use in connection with a particular course; and, (b) if a charge is levied, it can be demonstrated that what is sought is cost recovery and not a profit.

This is the effect of the judgment of Justice Gummow in *Copyright Agency Limited v. Victoria University of Technology* (Federal Court, 30 September 1994).

CAL had argued that production and sale of anthologies to students was not permitted by the part of the Australian Copyright Act of 1968 which covers copying by educational institutions. Justice Gummow held that the educational purposes proviso would be satisfied where copies are made for use in connection with a particular course.

A difference between the North American and Australian legal settings is that Australia has a statutory license scheme which (roughly) permits the reprographic reproduction, including multiple copying, of literary works by educational institutions for the educational purposes of the institution. In the ordinary case, only a statutorily defined "reasonable portion" can be copied. Further copies must be paid for on a "reasonable remuneration" basis.

This scheme has been in operation since 1981 and is a separate licensing arrangement specifically provided for in legislation and regulations. Since 1981, there have been some statutory reforms and re-draftings of the legislative text, some co-operative test-case litigation to determine a benchmark for "reasonable remuneration," and some genuinely adversarial litigation between disputing parties. Just as the copyright owners have formed a collecting society to promote and protect their interests, the universities have formed a common policy and largely negotiate through the Australian Vice Chancellors Committee (AVCC). Indeed, the role of collecting societies is now embraced by the legislation.

The Victoria University case was about the limits of the wording of one part of the legislation. Copyright owners were testing whether the words of the statute allowed the copying of disparate items that were intended to be distributed together as an anthology. Owners argued that this was a form of publishing and therefore beyond the limits of mere "copying"- i.e., going beyond the reproduction right to the publishing right. The argument was not accepted by Justice Gummow.

Much of the argument in the case was about the meaning of the word profit in the section of the law and differing views about methods of calculating costs. The trial judge took an "intention of the parties at the time of copying" approach. Justice Gummow found no "profit" in circumstances where anthologies are produced solely for the use of students of the particular institution and when that institution levies a charge to recover the costs of production. He specifically allowed that this may involve much more than simple printing and paper costs and may include salaries, insurance, telephones, packaging, maintenance, and more. In this context, Justice Gummow discussed the 30% markup levied by the VUT bookshop in order to recover such costs and to attempt to break even on its operating budget.

On October 18th, the 12 publishers and CAL announced that they will appeal the case.

This article was assembled by Ann Okerson, OSAP, with reference to analyses from Laura Gasaway, University of North Carolina; Jane Ginsburg, Columbia University; Sanford Thatcher, Pennsylvania State University Press; Georgia Harper, University of Texas System; Edward Lim and Nicholas Pengelley, Monash University; and Phillip Griffith, AVCC.

HEIRALLIANCE HIGHLIGHTS AAU PROJECT

The Higher Education Information Resources Alliance of ARL, CAUSE, and Educom has published a report highlighting the recommendations resulting from the Association of American Universities (AAU) Research Libraries Project task forces: Intellectual Property; Management of Scientific and Technological Information; and Acquisition and Distribution of Foreign Language Materials. The report was distributed in December to presidents of universities and colleges, directors of ARL libraries, and representatives of CAUSE and Educom to inform the higher education community broadly about the project and engage greater participation in follow-up activities.

What Presidents Need to Know... about the AAU action agenda for university libraries was issued as HEIRAlliance Executive Strategies Report #5, December 1994. The four page report may be copied for further distribution on campuses or for other non-commercial purposes. Printed copies are available for $5 each through the CAUSE office (303-939-0310). The electronic text is on the CAUSE Gopher server (cause-gopher.colorado.edu).

FEDERAL RELATIONS

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

DEVELOPING FAIR USE GUIDELINES FOR THE NII: DEFINING THE ISSUES

On December 2, the Department of Commerce Patent and Trademark Office (PTO) hosted the latest in a series of meetings on fair use and the National Information Infrastructure (NII). These meetings were a follow-up to a September Fair Use Conference called by the Administration's Working Group on Intellectual Property Rights of the Information Infrastructure Task Force. During the fall, the Working Group established three subcommittees to examine fair use and the NII in library, university, and elementary/high school settings. Initial meetings of each subcommittee brought together representatives of copyright owners, libraries, and users to develop guidelines for fair use of copyrighted works. (See *ARL 176*, p. 10, and *ARL 177*, p. 7, for background.)

The December meeting brought representatives from the subcommittees together to discuss drafts of over 20 "issue papers" prepared by participants in the series of meetings. Topics covered by the papers were those identified at subcommittee discussions as warranting further consideration. These topics included: the definition of a classroom/library, distance learning, transient copying, interlibrary loan, document delivery, electronic reserves, preservation, and encryption.

The point of preparing the issue papers was to define and describe the topic or activity, provide examples of projects and experimentation that relate to fair use in an electronic environment, and summarize relevant issues. Active collaboration among librarians, publishers, and representatives of educational and publishing organizations was encouraged so that the resulting issue papers would present each topic in a broad context, rather than from a single perspective. Mary Jackson, ARL, coordinated the writing of issue papers on three topics (ILL, DD, and e-reserves); Ann Okerson, ARL, did the same for the topic of encryption.

At the December meeting, 20 of the 24 papers were summarized and comments were sought on changes or improvements needed in the presentation of the issues. Representing the Association at this meeting were Mary Jackson and Prue Adler. The revised issue papers will be used to provide the Working Group with background and context as it begins to focus on the development of fair use guidelines for the NII on some or all of the issues for which papers were written. As the issue papers are revised and made available, they will be posted on the ARL Gopher (arl.cni.org).

The Working Group subcommittee will have another joint meeting in early January. The Working Group steering committee asked authors of some of the papers to develop draft fair use scenarios based on the issues covered. These scenarios will give examples of activities that might fall within or exceed fair use. For the January meeting, scenarios will be developed about works for the visually impaired, transient copying, preservation, downloading for personal use, distance learning, and authors' issues.

Any guidelines for which consensus is reached in this process are expected to be included in the final report of the Working Group on Intellectual Property Rights, which is due to be published in mid-1995. - *Mary E. Jackson*

DEVELOPING FAIR USE GUIDELINES FOR NEW MEDIA

The Consortium of College and University Media Centers (CCUMC) is sponsoring a series of meetings to develop fair use guidelines for educational multimedia development and presentation. The call for guidelines follows CCUMC's June conference on Educational Fair Access and the New Media. Participants in the discussions include representatives of the academic, library, software, television, and publishing communities.

Some of the issues discussed at the most recent meeting include:

- How much can be excerpted under fair use and should there be different standards for different kinds of copyrighted works (i.e., should text or a graphical image be treated differently than video and so forth)?
- Is it fair use if a multimedia program, which incorporates portions of copyrighted materials used under fair use, is used for instructional purposes?
- Is it fair use if a multimedia program, which incorporates copyrighted material used under fair use, is stored in an institution's computer for use by other students within the institution?
- Similarly, can the program containing these excerpts be transmitted to other institutions?

A third session is scheduled for January 5. Prue Adler is representing ARL in these discussions. - *Prue Adler*

STEEP INCREASE APPROVED FOR USPS LIBRARY RATE

On December 12, the United States Postal Service (USPS) Board of Governors approved new postal rates that went into effect January 1, 1995. Overall, the rate for library fourth class postage will increase 69.9%, slightly less than the original 74% proposal made by the USPS last spring. The increase is expected to have a significant impact on both library book budgets and on the costs of interlibrary loan operations. (See *ARL 174*, p. 11 for background and examples.) - *Patricia Brennan*

Office of Management Services

Susan Jurow, Director

Creating a Learning Organization

With the publication in 1990 of Peter Senge's book, *The Fifth Discipline: The Art & Practice of the Learning Organization*, the term "learning organization" became a part of the lexicon of organizational development. In this work, Senge described the problem of fragmentation in society, and in our way of viewing the world, as the root of our collective inability to think and work effectively during this era of unprecedented change.

Five approaches were introduced in *The Fifth Discipline* that Senge contends have the power individually and collectively to transform our understanding of the meaning of work and our personal relationship to that work. He called these "component technologies" the five disciplines: systems thinking, personal mastery, mental models, shared vision, and team learning.

While the ideas and concepts outlined in his book were met with great interest, many people found it difficult to imagine how to apply them in a practical way. A number of publications have appeared in the past four years that offer strategies, tools, and techniques for implementing the principles expressed in Senge's work.

•***Ten Steps to a Learning Organization***
by Peter Kline and Bernard Saunders (Arlington, VA: Great Ocean Publishers, 1993)
This book focuses on transforming the workplace into a "learning place," fostering individual responsibility and creativity as a means for improving organizational effectiveness. The authors organize the process of developing a learning organization into ten steps: assessing the learning culture; promoting the positive; making the workplace safe for thinking; rewarding risk-taking; helping people become resources for each other; putting learning power to work; mapping out the vision; bringing the vision to life; connecting the systems; and getting the show on the road. This volume is especially helpful for developing an understanding of the concept of "learning" in an organizational setting.

•***Sculpting the Learning Organization***
by Karen Watkins and Victoria Marsick (San Francisco, CA: Jossey-Bass, 1993)
Watkins and Marsick use a focus on learning as a catalyst for organizational change. Based on case studies, this book examines approaches to enhancing individual learning strategies, explores team approaches to learning, and offers suggestions for organizational initiatives for integrating work and learning. The final chapter offers a snapshot of what a learning organization would look like on a day-to-day basis.

•***The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization***
by Peter Senge et al (New York: Currency Doubleday, 1994)
This book is the outgrowth of consulting and research conducted by Senge and many others at the Center for Organizational Learning at MIT and Senge's firm Innovation Associates. It is a compilation of ideas, reflections, stories, methods, notes, and exercises gathered from organizational development practitioners who have sought ways to make Senge's vision a reality. There are units and exercises appropriate for individual learning, for teams, and for organizations working as a whole. For those attracted to the concepts and value system inherent in Senge's work, this volume will help us understand how to make it happen.
- Susan Jurow

Recent OMS Publications

Due to greater than anticipated demand, OMS has reprinted *Collection Conservation Treatment: A Resource Manual for Program Development and Conservation*. This loose-leaf notebook contains the most up-to-date information on collection conservation and program management, as well as many illustrated applications.

Recently published SPEC Kits include SPEC Kit #201, *Electronic Journals in ARL Libraries: Policies and Procedures* and SPEC Kit #202, *Electronic Journals in ARL Libraries: Issues and Trends*. Based on a survey undertaken in early 1994, these companion publications provide information on current practices in the distribution, identification, use, and organization of electronic journals in ARL libraries today.

SPEC Kit #203, *Reference Service Policies*, documents the types and extent of changes occurring in reference service, with focus on recent or anticipated changes in programs or staffing at the reference desk.

SPEC Kit #204, *Uses of Document Delivery Services*, includes a comprehensive bibliography, as well as document samples of pilot projects; vendor selection policies; annual reports, evaluations, and statistics; and library and document delivery service flyers. This is an important contribution to the available literature on alternative library service methods.

SPEC Kit #205, *User Surveys in ARL Libraries*, focuses on improving library services through the assessment, analysis, and reporting of users' needs and attitudes. It contains examples of both general and service-specific surveys; survey reports; the structure and purpose of focus groups; and a list of selected readings used by responding ARL libraries in their own survey efforts.

Collection Conservation Treatment is available for $45. Each of the SPEC Kits above are available for $40 ($25 ARL members). For these and other SPEC products and shipping prices, contact ARL Publications, Department #0692, Washington, DC 20073-0692.
- Laura Rounds

COALITION FOR NETWORKED INFORMATION

Paul Evan Peters, Executive Director

MANAGING THE NETWORKED ORGANIZATION

The Coalition for Network Information's Fall Task Force Meeting was held in Orlando, Florida on November 29-30. The meeting theme was "Managing the Networked Organization." This was the second time the Coalition Task Force met outside Washington, DC and the first time that it met according to the new Fall Task Force Meeting strategy of co-scheduling with the CAUSE and Educom annual conferences on alternate years.

Paul Evan Peters, Executive Director of the Coalition, introduced the first panel, which addressed the meeting theme. He noted that one of the most important functions of the Coalition is assisting managers of networked enterprises in the research and education community in their efforts to face two critical challenges: recognizing the full potential of the networked environment in a coherent, actionable manner; and, choosing the best means to generate, develop, and preserve value in this environment.

He commented that successful managers of networked enterprises are meeting those two challenges by, among other things, reformulating the three most significant variables in the value equation: the "content" variable, which covers the specific products and services they offer; the "context" variable, which covers the ways in which customers access those products or services, often together with other, related products and services; and, the "infrastructure" variable, which covers the mechanisms by which enterprises actually deliver their products or services. The reformulation of these three key value variables is but one in a still growing list of important issues affecting the management of networked enterprises.

Four senior information resource and technology managers spoke about this set of issues from their professional and institutional perspectives.

Jerry Campbell, University Librarian, Duke University, and President, Association of Research Libraries opened his presentation with a joke that there is a new country song about the network entitled, "How can I miss you when you won't go away?" On a more serious note, he then addressed what he sees as the key challenges of managing in the networked environment. He identified seven key organizational characteristics that are particularly affected: the management system, organizational structure, information flow, work environment, work process, response to stimuli, and funding model. He told the audience that changes are more profound for libraries than for computing centers since libraries took their shape early in this century and are now mature and established organizations. Typically, management systems have been hierarchial, library administrators have not empowered their workforce to be creative as they approach new challenges, it often takes a long time to make decisions about minor things since decisions must go up and down the chain of command, the flow of information in the organization is vertical, the work environment centers on the individual rather than on the team, work processes have been procedure and service-based (structured to carry out assignments but not to encourage re-thinking), and learning new management systems has not been a priority.

In the networked environment, changing the organization is a complex and long-term task. Campbell focused on three areas of change drawn from the experience of libraries.

- Managing finances - Campbell characterized this issue as "old money and a new piece of pie." While carrying out existing tasks, institutions must build a new networked infrastructure. Given the magnitude of networking costs, a "roll forward" approach to budgeting is not workable. He suggests a zero-based type of process. Another major economic issue is the control of intellectual property in the networked environment and our inability to superimpose the economics of print on the network environment.
- Managing risk - As a concept, risk management is relatively new to libraries. The network environment poses risks, including the robustness of the network itself. There is a risk to libraries that they will lose access to information since an institution is often licensed only for access, not archiving of information. Libraries have a particular concern with information integrity over time, which is one of the motivations of the Association of American Universities in its recent report to call for the management of intellectual property of the academy within the academy.
- Managing transition - The establishment of the network environment is one tangible sign that our organizations are already changing. As the demand for information increases, the major constraints are legal, not technical.

Concluding on a high note, Campbell said that in the networked environment, the possibilities for increased cost-effectiveness of organizations and our ability to deliver information are extraordinary.

Jack McCredie, Vice Provost for Information Systems and Technology, University of California, Berkeley began with a brief overview of management philosophies since the 1960's and noted that the current paradigm is "if it works, it's obsolete." McCredie said that at Berkeley, he worries about three issues: first, what are we doing as an organization and how should we do it?; second, what do we need and can we pay for it?; and

third, how do we support the goals of the organization through information technology?

McCredie remarked that the major focus at Berkeley when he arrived was extending the campus network infrastructure. Berkeley went from 2000 to 20,000 connections in two years. He said that a conservative estimate of the cost of the connections and the equipment connected is $100 million. How do we manage this tremendous asset and plan for its evolution? This must become a university-wide issue.

At Berkeley as in other large institutions, the focus has switched to home access. Campus constituencies have become accustomed to a high level of network service on campus and this has resulted in a demand for a similar level of service where the individuals live so that they can continue their work at home. It is difficult to provide this level of service to the home. McCredie would like to see an urban network develop with the university as an anchor tenant on that network and hopes to work on shaping that reality.

McCredie closed with the comment that he is frequently asked, "When will the network be finished?" His answer is, "Never - it evolves and creates new demands."

Carla Stoffle, Dean of Libraries, University of Arizona, described the continuous quality improvement environment of her campus and the ways in which the library is evolving to meet the challenges of the networked environment. She commented that her university is not looking for incremental change and that they have done some major reengineering in the library. Key issues have been the need to flatten the organization and the need to change more rapidly.

Stoffle related that as she flattened the library organization, there were increasing needs for better communication, which the network facilitates. However, she also found that by removing the filtering previously performed by middle managers, there were new demands on staff to translate information into their own context. She found that some staff were overwhelmed by the increased volume of information that they received and felt more out of control than in the past.

The electronic environment creates high customer expectations, and the library doesn't manage customer expectations very well, particularly customer demand for immediate response. In introducing new services, staff often balk at implementing them until all staff are fully trained in the use of the new resources and services, but sometimes a segment of the users can already use the systems on their own. This leads to questions about whether to delay access to resources to all users because of staff constraints.

Ann Stunden, Director, Academic Computing and Network Services, Northwestern University, used the context of Maurice Sendak's "Where the Wild Things Are" to provide a perspective of a week in the life of an academic computing director. She described the challenges she faces as: redefining campus community values; putting policy and policy education in place; developing campus processes for resolving problems; ensuring communications and collaborations; obtaining funding for resources to meet growing demands; defining a campus-wide information architecture; and ensuring network security and privacy.

On a day-to-day basis, Stunden deals with such issues as how to handle flaming by students in Internet newsgroups, violation of copyright by a student who uploaded a game to a campus server, pornography placed on campus servers by students, and sensitive e-mail sent to an incorrect address. She described her concern that existing campus policies may or may not cover some of the problems encountered in the network environment, and with the rapid pace of change and unanticipated developments, it is a challenge to prepare for anything that could happen.

Northwestern has policies that cover appropriate use and free speech, but in individual cases, those policies are open to much interpretation. When the Computing Center determines that an action may be in violation of the appropriate use policy, they send letters or make phone calls to the parties involved encouraging them to rethink their actions and send them a copy of the appropriate use policy.

Other challenges Stunden raised included the great increase in network use on campus. As at Berkeley, use has accelerated dramatically in recent years. In 1993, 4,000 individuals had Northwestern accounts, and in 1994, 10,000 individuals had accounts. The Computing Center operates 70 listservs, including 10 used by faculty for teaching. Four classes use electronic conferencing involving 700 students.

All four panelists gave a genuine flavor of what it means to manage in a networked information resource environment where change is rapid, user expectations are high, and demand is exponential.

The Coalition Task Force Meeting also included plenary sessions on growth of networks and networked information resources and services in the U.S. and the U.K.; Internet security and privacy strategies, technologies, and issues; a joint session with CAUSE on an anthropological perspective of how technology pushes and is pulled by change; and, an update on Coalition priorities, projects, and strategies. In addition, twenty-four Project Briefings and Synergy Sessions were held. - *Joan Lippincott, Assistant Executive Director*

ARL Activities

G. Jaia Barrett, Deputy Executive Director

ARL Gopher Connections Grow

The ARL Gopher has seen a steady increase in connections in recent months. In July, just over 13,000 connections were made to the server; in November, the number rose to over 34,800. In this five month period, the ARL Gopher was accessed nearly 140,000 times with an average of 28,000 connections each month.

The users come from a variety of network domains, with most connections originating in educational institutions. Commercial domains are the second largest category of connections, followed by government domains. Users from Canada, Australia and the United Kingdom are also frequent visitors to the ARL Gopher.

What are people looking at once they get in? The ARL *Directory of Electronic Journals, Newsletters and Academic Discussion Lists (DEJ)* is the most frequently consulted resource on the gopher. Just as the overall number of connections has grown, so has the number of connections to this area of the gopher. In July, the *DEJ* menu option was accessed 1,130 times, in August, 3,552, September, 5,150, October, 6,309, and November, 6,851, for a total of 22,992. In addition, the searching mechanism for the *DEJ* files consistently ranks as one of the most frequently used resources.

Observations about how people use the gopher can be inferred by analyzing the way people access it. For example, a high number of accesses to gopher menu lines (22,913) suggests that people are browsing rather than reading particular documents. Another indication of casual use is the high number of domains with a single connection — over 3,000. But users are finding content, too. There were 28,840 connections to actual files or documents.

The second most consulted documents on the ARL Gopher are the ARL Statistics for 1993. Other high use areas include Access to Research Resources, general information about ARL, ARL Member Libraries, and Scholarly Communication.

Over 17,400 connections were made to the main menu of the ARL Gopher. Since this is only about 12.5% of the total connections made, most users are probably reaching resources on the ARL Gopher by following links from other points on the Internet. On the other hand, some users pass through the ARL Gopher on their way to other gophers on the Internet as witnessed by the fact that "Other Gopher Servers" was accessed over 2,000 times from July to November.

The ARL Gopher continues to grow as new documents and links to other resources are added. We at ARL will continue to monitor the pattern of connections for indications of what material is most useful to the research library community. - *Dru Mogge*

New on the ARL Gopher

Following is a sample of new publications found on the ARL Gopher (arl.cni.org). In addition to accessing the gopher directly, the ARL Web Server (URL: http://arl.cni.org/) now includes a link to the ARL Gopher. Contact Dru Mogge (dru@cni.org) with questions, comments, or suggestions.

- Association of Research Libraries (ARL)
  - *Plus ça Change*: 60 Years of the ARL
  - ARL Publications
    - Subject Index to SPEC Kits in Print, '73-'93
    - New Publications from ARL & OMS
- Information Policy
  - Intellectual Property Issues
    - ARL Response to Draft Report on Intellectual Property
    - Detailed Comments on Draft Report on Intellectual Property
    - ARL Fair Use Statement before the IITF Working Group
  - National Information Infrastructure (NII)
    - ARL Response to "Putting the Information Infrastructure To Work"
- Minority Recruitment & Retention
  - ARL in Support of a Diverse Research Library Workforce

ARL Catalog Available Via the Internet

The *ARL Publications Program Catalog, 1994-95* is now available via the ARL Gopher (arl.cni.org). The catalog contains a list of the most current publications available from ARL. Topics include: scholarly communication, library functions and services, and management. New titles in 1994 included: *Reports of the AAU Task Forces, Reference Policies in ARL Libraries*, and *The Bibliographic Control and Preservation of Latin Americanist Library Resources*. The gopher version of the catalog will be updated monthly as new titles are published.

A paper version of the catalog is available from ARL Publications, Department #0692, Washington DC, 20073-0692 (email arlhq@cni.org). - *Patricia Brennan*

Site Visits Focus on Minority Recruitment and Retention

The Minority Recruitment and Retention program is scheduling site visits to ARL libraries between January and April 1995, supported by funds made available from the Gladys Krieble Delmas Foundation. The Delmas funds help defray the travel expenses normally financed by the host institution.

A site visit provides Kriza Jennings, ARL Program Officer for Diversity and Minority Recruitment, with

more information about what ARL institutions have done, or are doing, to facilitate the development of a multicultural workforce. It also provides an opportunity for her to share with ARL personnel the findings and strategies identified from the past five years of research on this agenda. During these visits, Ms. Jennings also explores the university's efforts to develop receptive climates for minorities.

Each site visit is for one day. Typically, about half of the time is spent by the institution and library describing their efforts and about half is for Ms. Jennings to provide consultations or presentations as requested by the host institution. To learn more about the variety of recruitment, retention, and diversity issues that may be addressed, contact Ms. Jennings at the ARL offices (kriza@cni.org). Site visits to Library and Information Science Programs, as well as historically black colleges and universities, are also being scheduled.

TEX-SHARE Contract Awarded

The Texas Higher Education Coordinating Board has awarded a contract to the University of Houston Libraries and the Sterling C. Evans Library at Texas A&M University to implement and manage an academic library resource sharing program called TEX-SHARE for the 1994-95 year. The TEX-SHARE project, funded by the Texas legislature, will enhance access to information resources among the 52 state-supported university, health science, and law libraries.

Major objectives for the year include the following:

- Installation of Ariel, a document transmission system that uses the Internet, in all 52 libraries.
- Negotiation of state-wide contracts for electronic journal indexing and abstracting and document delivery services.
- Negotiation of a state-wide contract for electronic access to the *Federal Register*.
- Development and implementation of a Texas Higher Education Library Card which will enable faculty and students affiliated with any of the 52 state-supported institutions to use materials and services at any TEX-SHARE library.
- Development and implementation of a Texas Higher Education Interlibrary Loan Protocol which would standardize procedures and enhance access to information among the 52 libraries.

UVA Celebrates Four-Millionth Volume

Last fall the University of Virginia Library celebrated the acquisition of its four-millionth volume, "Lady Freedom Among Us," a poem by Rita Dove, United States Poet Laureate and Commonwealth Professor of English at the University of Virginia. As a sign of the times, the volume was issued in two formats: a limited printed edition by the Janus Press, and an electronic version prepared by Rick Provine and David Seaman of the UVA library staff. The electronic version includes the text of the poem, images of all pages of the printed version, a sound recording of Rita Dove reading the poem, and related materials on the poem and the celebration of this milestone. The electronic version can be found at the UVA Library home page: http://www.lib.virginia.edu/.

Fulbright Competition Announced

The Council for International Exchange of Scholars has announced the competition for 1996-97 Fulbright scholar awards for faculty and professionals. The competition includes grants to conduct research, teach, or study abroad and to make a major contribution to the growth of mutual understanding among countries and individuals. Awards range from two months to a full academic year. Virtually all disciplines and professional fields participate. The deadline for submitting applications is August 1, 1995. Information and applications are available from the CIES, 3007 Tilden St., NW, Suite 5M, Box GNEWS, Washington, DC 20008-3009 (202-686-7877). Application requests only may be sent via e-mail (CIES@CIESNET.CIES.ORG).

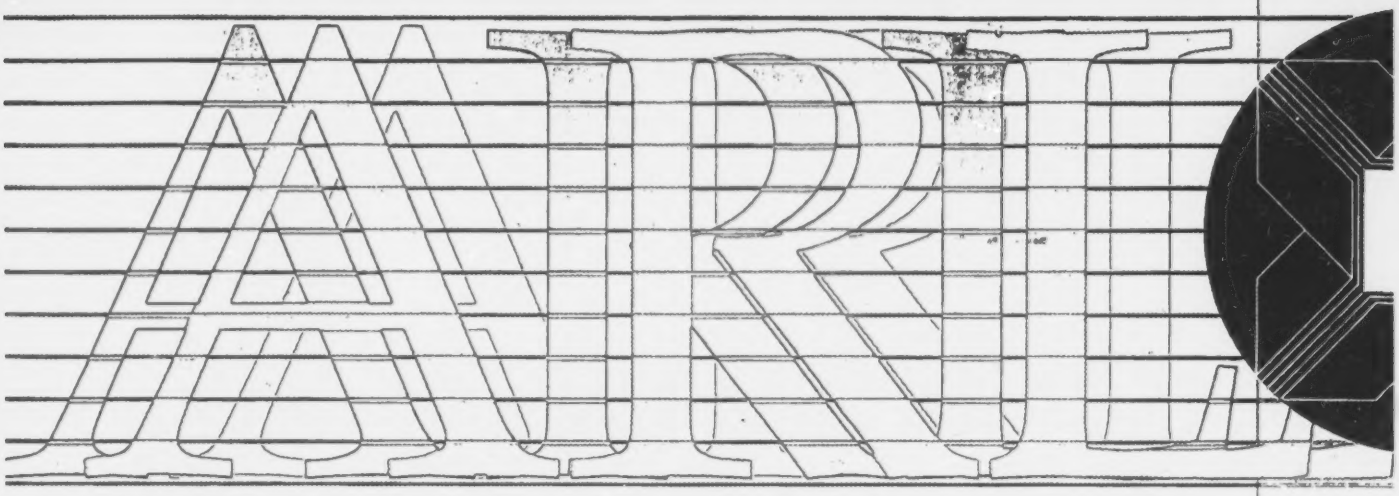
Transitions

Howard: Ann Randall has taken an extended leave of absence; Mod Mekkawi is acting director of libraries in her absence.

Virginia Polytechnic Institute and State University: Eileen Hitchingham was appointed Dean of University Libraries effective January 1. Dean Hitchingham was formerly Dean of Libraries at Drexel University.

•••

U.S. Department of Education: Ray Fry has announced his retirement as Director of the Office of Library Programs, effective March 31. He has served in a number of roles in support of federal library programs since joining the Department of Health, Education & Welfare in 1967.



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ARL Calendar

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February 3-9	American Library Association Philadelphia, PA
February 9-10	**ARL Board Meeting** **Washington, DC**
March 9-11	ARL/NACS Electronic Reserves Forum Chicago, IL
March 13-14	OCLC Research Library Directors Conference *The Global Community of Research Libraries* Dublin, OH
March 14-15	OCLC Research Library Advisory Committee Dublin, OH
March 29-April 1	Association of College and Research Libraries 7th Annual Conference Pittsburgh, PA
April 6-7	EDUCOM NationalNet Washington, DC
April 10-11	Coalition for Networked Information Spring Task Force Meeting Washington, DC
May 17-19	**ARL Board and Membership Meeting** **Boston, MA**
June 24-27	American Library Association Chicago, IL
July 24-25	**ARL Board Meeting** **Washington, DC**
September 3-7	University of Oxford, University of Oklahoma, ARL, Council on Library Resources *Role & Future of Special Collections in Research Libraries: British and American Perspectives* Oxford, England
October 18-20	**ARL Board and Membership Meeting** **Washington, DC**
October 30-31	Coalition for Networked Information Fall Task Force Meeting Portland, OR

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Current Issues

DISTANCE LEARNING AND LIBRARIES

by Thomas W. Shaughnessy, University Librarian, University of Minnesota

For several decades, colleges and universities have been engaged in distance education, although it is only in recent years that this terminology has come into widespread use. Previously, correspondence classes were the major vehicle for serving students who, because of distance, work schedules, or other reasons, were unable to attend traditional classes. More recently however, distance education has come to encompass the entire range of arrangements for delivering instruction via printed or electronic media to students at a place and/or time different from that of the instructor.[1] Indeed, the greater focus on the needs of students has caused "distance learning" to become the terms of choice instead of "distance education."

Because of a number of factors, many of which are cited below, distance learning has moved rapidly from being at the periphery of higher education to the foreground. Moreover, some experts are predicting that most college and university classes will be offered to distance learners in addition to traditional classroom presentations. Among the several reasons for this dramatic shift are:

(1) The changing nature of the student body: from 18-23 year old full-time students to part-time students who are life-long learners, but who cannot easily travel to a campus and/or whose work schedules or other responsibilities prevent regular class attendance.

(2) Advances in (or at least the promise of) telecommunications and multimedia technologies: video server models along with fiber optics and ATM applications can provide interactive, full motion video. Students from virtually any place on the globe will be able to participate fully in classroom presentations, discussions, and other avenues for learning.

(3) The wide availability of Internet access: while not nearly as effective an educational delivery system at this time as full motion interactive video, the Internet has been found to be a very important supplement to packaged or modularized instruction. Electronic mail via the Internet is increasingly being used to make learning more accessible.

(4) Instructional multi-media courseware packaged on diskettes or on CD-ROM (or videotape, audio tape, or combinations of formats): allows for some degree of interaction, learner involvement, and feedback while providing a rich array of information resources, including the texts of articles, photos, audio, film and video excerpts, images, etc. One of the major advantages of multi-media courseware is that it can be accessed at any time, at any place, and at any pace, provided the learner has available the prerequisite equipment (e.g. CD-ROM reader).

(5) Cost savings or cost efficiencies: achieved by reaching many more students at sites around the world.

(6) Competition for students and market share: not simply with other universities, but with commercial providers of educational courses and products.

Models of Library Support for Distance Learning Programs

For the most part, the record of library support for distance learning has been mixed. With all

too few exceptions, students enrolled in these programs have had to fend for themselves with respect to acquiring relevant library services and collections. Public libraries appear to have borne the brunt of service demands from distance learners, but other types of libraries have also struggled to meet the needs of students who often have no affiliation with the particular library they are using. It is ironic for some academic libraries to protest the heavy use made by students who are enrolled in courses offered by *other* institutions of higher education, when they make no provision to meet the library needs of *their* institution's students who are enrolled in far-flung distance learning programs.

Some of these issues were addressed by the Association of College and Research Libraries, which issued in 1981 *Guidelines for Extended Campus Library Services* (revised and updated in 1990). The Guidelines underscore the parent institution's responsibility "for providing support which addresses the information needs of its extended campus programs."[2]

Before the advent of systems for remote interactive electronic delivery systems, libraries supported distance learning by compiling packets of course related readings, by placing deposit collections at the sites where classes were offered and which could easily be moved or refreshed as needed, and by providing interlibrary loan service via a library that was close to where classes were being offered. In some instances, particularly where there was not convenient access to a local library, books and articles were mailed directly to the student, or copies of required readings were attached to course syllabi and mailed to students.

None of these approaches, however, resulted in library services that approximated those that were available at the campus library. There was always a lack of interactive service: reference service that could provide point-of-need assistance, instruction, and orientation to a research topic. Consequently, there tended to be a definite qualitative difference between courses offered to distance learners and those offered in a traditional campus setting.

The conversion of library card catalogs to a machine readable format helped narrow this gap to some extent. Distance learners are now able to search the catalogs of libraries by means of computers equipped with modems and to request items found therein via interlibrary loan. (Document delivery continues to be a weak link in library service effectiveness, however, and will require considerable improvement.) Moreover, many online library catalogs now include citations to periodical articles and even the full-text of some articles, as well as electronic dictionaries and encyclopedias. These online systems deliver information to the student when it is needed in electronic text and/or image files. However, students need to have access to computers at the local level and the necessary connectivity if they are to take advantage of these capabilities.

As distance learning programs become more technology-based and more interactive in real time, the services that support student learning—library services as well as counseling, advisement, and other student services—need to be made available to these learners in as transparent a manner as possible. Otherwise, these programs will continue to run the risk of being inferior to those offered in a more traditional manner.

More importantly, as distance learning begins to take center stage on some of our campuses, the delivery systems associated with it are likely to become the instructional methods of choice for most higher education courses! Several studies have shown that whereas students retain only a small percentage of what is presented via the lecture method, considerably more is retained when students are more fully engaged in the educational process. The ability of educational delivery systems to integrate sound, video, text, and image, and to make the information available at a pace suitable to individual learning patterns and styles is expected to revolutionize on-site classroom instruction as well as distance learning.

From the library's perspective, text and digitized image files, sound recordings, videos, and CD-ROM resources can easily be incorporated into this new learning environment. Many libraries are already offering reference services via electronic mail, while others are designing user-friendly front ends to facilitate unmediated access to databases and other online resources. For more specialized assistance, it is possible for students at remote locations to link with librarians in jointly searching online files in real time. In these situations, the information appearing on the librarian's computer can be simultaneously viewed and manipulated by the student using his/her own computer. Reference service offered in such an individualized manner would be superior, in many instances, to the service offered on-site in many libraries.

Issues for Libraries

Although distance learning enjoys an extremely bright future because of the growing numbers of non-traditional students and life-long learners, the development of the National Information Infrastructure, and the implementation of new technology-based delivery systems and networked access to information resources, it will require considerable investments in campus infrastructure, telecommunications, digital libraries, computing, and faculty and staff re-education. Faculty will need to learn, for example, how to incorporate informa-

tion technologies into their classes and educate students in entirely new ways. Librarians will need to participate on instructional design teams so that appropriate library resources might be delivered to remote students as integral parts (versus the supplemental readings approach) of their instruction.

Copyright and fair use are additional issues that need to be resolved. Libraries must operate within the law while at the same time they work to make their resources as accessible as possible to all of their respective constituents, regardless of their location. In institutions that are not as far along the instructional technology continuum, it will continue to be important for librarians to identify those on their campuses who are engaged in distance learning and to suggest how students might access appropriate library resources and services from the institution's library or through arrangements that have been made (or will need to be made) with local libraries in the area where classes for distance learners are offered.

If it is true that distance learning programs are a model for the future of higher education in that they are distance and time independent, customer focused, and more relevant to the needs of the workplace, then our libraries need to find ways of more effectively meeting the needs of this new type of education. New cooperative agreements and alliances among libraries will need to be established and distinctions among types of libraries and library jurisdictions will need to become blurred if we are to more effectively meet the needs of our student-customers. These political issues will need to receive much more attention than they have thus far.

A Scenario for Future Development

As higher education becomes viewed as being a commodity which customers (students) may buy from a variety of sources - higher education institutions and corporations - it is possible to visualize a situation in which students may enroll for classes taught electronically by a variety of institutions. The concept of "classroom time" may come to be viewed as a quaint anachronism when considered against the capacity of universities and their competitors to deliver instruction electronically.[3] It is possible to imagine, furthermore, that the very best faculty from around the world will offer classes via full-motion interactive video, through packaged instruction on CD-ROM, or through some other combination of computing and telecommunications systems. Classes that are now offered electronically to the staff of multinational corporations may also be offered for credit to students from around the world. A number of software suppliers and cable conglomerates have already indicated a strong interest in the educational market. These firms have substantial capital and talent to invest, possibly "more capital than higher education has invested in instructional programs over the last three decades."[4]

It is conceivable that in the future, universities will have tens of thousands of students from around the world, most of whom may never set foot on a campus. In fact, distance learning may become the *standard* method by which learning takes place, rather than a secondary or fringe activity. As new developments continue to occur in areas such as wireless communication, multi-media applications, simulations, and virtual reality, it is likely that even laboratory-intensive classes will be offered electronically.

Some experts in higher education are suggesting that distance learning will bring about a major shakeout among comprehensive research universities, and that in 20 to 30 years, their numbers might significantly decline. While these universities possess the intellectual capital to compete in the emerging educational marketplace, too often they lack the leadership or incentive to adapt.[5] The search for a more accessible set of educational products has not been translated into a sense of urgency within most institutions.

It seems safe to predict that those institutions which will flourish in this changing environment will have capitalized on distance learning to meet the needs of the marketplace, and will have formed alliances through which their individual human, technological, and library resources might be leveraged to meet the needs of society. This is clearly an agenda to which librarians have much to contribute. There are few groups on our campuses that have as much experience as librarians in meeting the individual needs of learners, in capitalizing on new technologies to meet those needs, or in crafting and operating inter-institutional programs. Distance learning provides opportunities to libraries and librarians that they cannot afford to miss!

(1) Michael G. Moore, "Introduction," in *Contemporary Issues in American Distance Education*, edited by Michael G. Moore. New York: Pergamon, 1990, p.xv.

(2) "ACRL Guidelines for Extended Campus Library Services" *C&RL News*, (April, 1990), p. 354.

(3) "To Dance with Change." *Policy Perspectives* (The Pew Higher Education Roundtable Sponsored by the Pew Charitable Trust). 5,3 (April 1994), pp. 3A-4A.

(4) Ibid., p. 3A.

(5) Ibid., p. 4A.

BUSH FOUNDATION SUPPORT FOR DISTANCE LEARNING

The University of Minnesota Libraries has received a $25,000 one-year grant from the Bush Foundation to begin planning library support for distance learning. The centerpiece of the grant is a detailed assessment of the information needs of faculty and students engaged in distance learning. The Libraries, in partnership with University academic departments, Computer and Information Services, and the MINITEX Library Information Network, will use the findings of the needs assessment to plan an effective, state-of-the-art information support system and service program. Besides the needs assessment and the planning for appropriate applications of technology, the following issues will be explored: intellectual property, data privacy and security; jurisdiction, cooperation, and equity among libraries participating in the support of distance learning; equality of access to information technology by distance learners; and the acceptance of new organizational structures and information delivery methods by students, faculty, and library staff.

The objectives of the Bush Foundation planning grant echo the "Management" section of the ACRL *Guidelines for Extended Campus Library Services*. Some of the points provided in that section are:

The library administration should:

- assess the needs of its extended campus community for library resources, services and facilities;
- prepare a written profile of the extended community's information needs;
- develop a written statement of immediate and long-range goals and objectives which address the needs and outline the methods by which progress can be measured; and
- involve academic community representatives, including the extended campus faculty and students, in the formulation of the objectives and the regular evaluation of their achievement.

The Bush Foundation planning grant is anticipated to be the first of three grants leading towards implementation of full library services to distance learners at the University of Minnesota and, potentially, throughout the state of Minnesota. The planning grant will produce a second-phase demonstration grant proposal for a series of pilot projects to deliver information services to distance learners. The successful completion of the demonstration grant will lead to the third and final proposal to establish a model infrastructure to support full-scale, ongoing information services to these learners.

MASS DEACIDIFICATION UPDATE FROM LC

Over the past two years, the Library of Congress has continued to enhance and encourage the development of mass deacidification technologies through a two-part Action Plan. Under Phase A of the plan, the Library pursued refinement of the diethyl zinc (DEZ) process. Phase B permitted the Library to offer a program of evaluation and testing to other promising deacidification technologies; under this provision, Preservation Technologies, Inc. (PTI) of Pittsburgh asked the library to evaluate its Bookkeeper deacidification process. With the DEZ process, the Library conducted a series of planned tests in the Akzo Chemicals deacidification plant in Texas and succeeded in eliminating process-related problems that were experienced earlier with the DEZ technology. However, Akzo Chemicals withdrew from the deacidification business and terminated its DEZ license with the U.S. Commerce Department effective September 1994.

Under the second phase of the Library's Action Plan, an evaluation team studied the Bookkeeper deacidification process. The team concluded that the Bookkeeper technology has the potential to meet the Library's technical requirements for mass deacidification. Introduction of new Bookkeeper equipment and a limited contract to treat 600 additional test books, led to the development of a second deacidification Action Plan for LC, consisting of two phases that will run concurrently for two years (1995-97).

The new Action Plan supports further process enhancements and an increase in the scale of the use of the Bookkeeper technology. In this part of the plan, the Library will use Bookkeeper to deacidify approximately 36,000 volumes per year for two years. Simultaneously, the Library will encourage and evaluate other competing technologies that can demonstrate a potential to meet or exceed the Library's deacidification requirements (complete deacidification, adequate alkaline reserve, an increase in the life of paper by at least three times its normal expectancy) without damage to collections. In this context, the Library reports that a domestic company has requested extensive information about the DEZ process, with a view toward determining its economic viability now that the process is perfected.

The Library's new two-year Action Plan reflects a determination to support the active development of mass deacidification technologies. Reports on the results of research conducted during the previous two years are available from Kenneth Harris, Preservation Projects Director, Preservation Directorate, Library of Congress, LM-G21, Washington, DC 20540-4500 (KHAR@LOC.GOV). Information about the Library's evaluation and testing of both programs is also available on the Internet through LC's Gopher (Marvel.loc.gov).

Fair Use in the Electronic Age: Serving the Public Interest

The following statement outlines the lawful uses of copyrighted works by individuals, libraries, and educational institutions in the electronic environment. The ARL Board of Directors endorsed this statement in February 1995 and suggested it be made widely available to spark discussions about fair use in the electronic age.

The genius of United States copyright law is that, in conformance with its Constitutional foundation, it balances the intellectual property interests of authors, publishers, and copyright owners with society's need for the free exchange of ideas. Taken together, fair use and other public rights to utilize copyrighted works, as confirmed in the Copyright Act of 1976, constitute indispensable legal doctrines for promoting the dissemination of knowledge, while ensuring authors, publishers, and copyright owners appropriate protection of their creative works and economic investments.

The fair use provision of the Copyright Act allows reproduction and other uses of copyrighted works under certain conditions for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, and research. Additional provisions of the law allow uses specifically permitted by Congress to further educational and library activities. The preservation and continuation of these balanced rights in an electronic environment, as well as in traditional formats, are essential to the free flow of information and to the development of an information infrastructure that serves the public interest.

It follows that the benefits of new technologies should flow to the public as well as to copyright proprietors. As more information becomes available only in electronic formats, the public's legitimate right to use copyrighted material must be protected. In order for copyright to truly serve its purpose of "promoting progress," the public's right of fair use must continue in the electronic era, and these lawful uses of copyrighted works must be allowed without individual transaction fees.

Without infringing copyright, the public has a right to expect:

- to read, listen to, or view publicly marketed copyrighted material privately, on site, or remotely;
- to browse through publicly marketed copyrighted material;
- to experiment with variations of copyrighted material for fair use purposes, while preserving the integrity of the original;
- to make or have made a first generation copy, for personal use, of an article or other small part of a publicly marketed copyrighted work, or a work in a library's collection, for such purpose as study, scholarship, or research; and
- to make transitory copies if ephemeral or incidental to a lawful use and if retained only temporarily.

Without infringing copyright, nonprofit libraries and other Section 108 libraries, on behalf of their clientele, should be able:

- to use electronic technologies to preserve copyrighted materials in their collections;
- to provide copyrighted materials as part of electronic reserve room service;
- to provide copyrighted materials as part of electronic interlibrary loan service; and
- to avoid liability, after posting appropriate copyright notices, for the unsupervised actions of their users.

Users, libraries, and educational institutions have a right to expect:

- that the terms of licenses will not restrict fair use or other lawful library or educational uses;
- that U.S. government works and other public domain materials will be readily available without restriction and at a government price not exceeding the marginal cost of dissemination; and
- that rights of use for nonprofit education apply in face-to-face teaching, and in transmittal or broadcast to remote locations, where educational institutions of the future must increasingly reach their students.

Carefully constructed copyright guidelines and practices have emerged for the print environment to ensure that there is a balance between the rights of users and those of authors, publishers, and copyright owners. New understandings, developed by all stakeholders, will help to ensure that this balance is retained in a rapidly changing electronic environment. This working statement addresses lawful uses of copyrighted works in both the print and electronic environments.

[Working Document 1/18/95]

The statement was developed by representatives of six library associations, including ARL. Feedback on the statement is invited and may be directed to Prue Adler, Assistant Executive Director - Federal Relations and Information Policy (prue@cni.org).

Ann Okerson, Director

SCHOLARLY PUBLISHING ON THE ELECTRONIC NETWORKS: A SYNOPSIS OF THE CONFERENCE

by Jinnie Y. Davis, Assistant Director for Planning & Research, North Carolina State University Libraries

Each fall, university press publishers, librarians, and other academics interested in electronic publishing turn to the annual symposium on Scholarly Publishing on the Electronic Networks for a stimulating and information-packed venue. The 160 symposiasts attending the fourth such symposium, held in Washington, DC, from November 5-7, 1994, continued the tradition of trenchant information exchange established by its founders, the Association of American University Presses (AAUP) and the Association of Research Libraries (ARL). With the collaboration of the University of Virginia Library, the Johns Hopkins University Press, and the American Physical Society, the associations focused this year on the areas of cost recovery and electronic fair use.

At the 1993 symposium, librarians and publishers stressed the importance of working together to resolve common problems. For 1994, the emphasis shifted to the creation of order out of the information chaos. The attendees stressed the importance of experimentation with new models of cost recovery that allow profitability and fair use, while fully exploiting the potential of electronic publishing to increase accessibility and utility. Presenters of the latest research and development from the not-for-profit sector demonstrated a willingness to plunge into new multimedia projects with diverse collaborators, even without solutions to the economic conundrums.

School's Out?

The keynote speaker was Lewis Perelman, author of *School's Out*. Perelman's views of how education is changing and ***must*** change are provocative and have been widely discussed. The author commented that, since its publication in 1992, he has been surprised at how cautious and modest his vision has become. Things have moved faster than he expected, and the learning revolution by and large is taking place not in schools and colleges, but in the workplace. Perelman also admitted that he now finds inexplicable how little he had to say about the role of libraries, possibly because their role is so obvious. He welcomes comments about the book via Internet at pearl@media.mit.edu.

Frankenstein Redux and Medieval Shopping

Michael Eleey, Associate Vice Provost, University of Pennsylvania, offered a multimedia presentation of his institution's electronic publishing project. The Committee on Electronic Publishing and Interactive Technologies, which organized the project, is composed of representatives from all aspects of the university: faculty, library, university press, computing, university relations, business, and museum staff. One campus initiative, the Freshman Reading Project, offers students from four University of Pennsylvania schools a shared intellectual experience through reading and discussing a common text. The text selected for discussion in 1993, Mary Wollstonecraft Shelley's *Frankenstein*, provided an exciting opportunity for electronic publishing with faculty and student involvement.

Martin Irvine and Deborah Everhart, both from Georgetown University, presented a multimedia demonstration of *The Labyrinth*, a project that makes medieval resources available to scholars over the Web. *The Labyrinth* is also intended as a model for collaboration among scholars, university presses, librarians, and WWW developers. Irvine proposed ways in which the Web can be used for cost recovery, offering scenarios for merging the goals of wide access and profitability.

Cost Recovery in an Electronic Publishing Environment: Issues and Perspectives

A panel of five speakers offered unique perspectives on cost recovery in electronic publishing. Sandra Braman, Institute of Communications Research, University of Illinois, delivered a brief introduction to the emerging field of the economics of information. Braman predicts more competition among academics and that academic publishers will continue to be gatekeepers, fulfilling their primary roles as certifiers of knowledge. After a period of turbulence, there will be far fewer academic scholars, fewer producers, and fewer people to give copyright to publishers. Braman recommends unbundling and re-thinking our commitment to the stages of the Internet production chain: creation of new thought, followed by the generation, collection, and processing of information.

Colin Day, University of Michigan Press, addressed the difficult problems of pricing electronic publications "in a context of remarkable unclarity." Cost recovery is usually seen as a minimum requirement for pricing. As examples of pricing schemes for electronic journals, Day cited those of the Johns Hopkins University Press, the MIT Press, and *Mathematical Reviews*. All three show the merit of simplicity, with *Mathematical Reviews* the best example of differentiation between first-copy costs (a data access fee of $3,595) and incremental costs for differing delivery modes. Day noted the need to have incentives for both supply (to encourage innovation and investment) and demand (to make materials available to all who need them).

Andrea Keyhani, Electronic Publishing, OCLC, offered a corporate perspective in the electronic journal arena. Publishers can create new products by recombining clusters of journals (e.g., by extracting all reviews from existing journals to construct a review journal). Keyhani noted that publishers and librarians are in a position to know what appeals most to users. She sees new opportunities in the sales (and online billing) of

individual articles. With centralized systems, the user can create new pathways to information, be connected to bibliographic databases, and receive instant delivery.

Jean-Claude Guedon, Department of Comparative Literature, Universite de Montreal, noting the specifically American context of the discussions so far, stated that his paper would take a global perspective of the economics of learned journals. The economic model of traditional print journals is well known, and the trend toward imminent collapse is clear. With scholarly publishing of electronic journals, savings may reach 25 to 30 percent, as the costs of printing and mailing disappear. Guedon suggested separating individual monies from collective, institutional monies: sales to individuals constitute about 25 to 30 percent of profits, so in the electronic publishing environment, savings would equal revenues from individuals, and library subscriptions could balance accounts. By adding subsidies to library subscriptions, one can make them available universally. Scientific research would become a truly worldwide enterprise, with more opportunity for participation by Third World countries.

Hal Varian, Department of Economics, University of Michigan, referred the audience to Web address http://gopher.econ.lsa.umich.edu for materials on economics and the Internet and for FAQs (Frequently Asked Questions) about Internet pricing. According to Varian, the benefits of usage pricing are more efficient use of bandwidth and capacity, revenue generation for growth and expansion, and more effective support of new applications.

What will the effects of multimedia be? With the large file sizes required, Varian foresees a dramatic increase in gopher and Web traffic, with demand out of sync with bandwidth growth. Because different services tolerate delay differently (e.g., delay is more tolerable with electronic mail than with real-time video), users will have to declare a priority for usage but need an incentive to do so. Fixed costs would cause usage prices to recover only the fixed costs of network capacity; capacity-based connection fees would be a better approach. Varian suggested a two-part tariff of a subscription fee and a congestion fee. He calculated current ASCII text costs at an average of $1.20/year, given current traffic, going up to as much as $100/month, if everyone moves to use of video. The point of usage-based pricing is not to cover current costs through connect fees, but to match use to capacity.

Like Trying to Patent Sunlight: Fair Use in an Electronic Environment

In "Creating Multimedia: Intersections Between Teaching, Scholarship, and the Copyright Law," Fred T. Hofstetter, Director, Instructional Technology Center, University of Delaware, used examples from his own PODIUM hypermedia application generator to demonstrate the ease with which text and media can be linked. He delighted the audience by taking a picture of audience members, digitizing it, and immediately inserting it in his multimedia presentation. Hofstetter noted, however, that under current guidelines of fair use, his actions in linking text with graphics and editing them would often be considered illegal. He proclaimed it a great tragedy if we create new guidelines that will continue to make these types of uses unfair.

Four panelists with long experience in this field offered their perspectives on fair use in the electronic environment. Terri Southwick, U.S. Patent and Trademark Office, described the process whereby the Administration Working Group on Intellectual Property in the National Information Infrastructure (NII) solicited responses from the public before writing its draft Green Paper. Patrice Lyons, Law Offices of Patrice Lyons, suggested a different approach to copyright issues by setting the framework for legislation "at the envelope level rather than the content." Lyons noted how little attention has been paid to the role and implications of communications law, where a different set of constructs may be relevant for fair use. Just as communications law provides for viewers to pay a set monthly fee for broadcasting and cable TV without regard for fair use of performances, it might offer a more appropriate way to frame the issue of public access to the NII.

John Lawrence, H-Net and Morningside College, brought the perspective of fair use administrators, who are "also prepared to squabble our way into the future." H-Net is a history network composed of fifty-two moderated discussion lists served by host computers at the University of Illinois at Chicago and at Michigan State University. Following the corporate model, H-Net has executive officers, a board of directors, and uniform policies for several lists.

Georgia Harper, Office of the Counsel, University of Texas System, represents a major university that is drafting a comprehensive copyright policy. In the electronic environment, if transaction costs come down, fair use may be unnecessary. Alternatives in the new environment include market options suggested by many at this conference. Legal options are also available in the form of case law development and legislation, but they are long and expensive processes. Contracting among the parties involved is another option. Publishers and users need not be adversaries, and no one should expect one side to unilaterally give up its right to be unreasonable. Harper urged both sides to work out a mutual compromise. If the same benefits can be achieved without fair use, we will no longer need it, she maintained.

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Filling the Pipeline, Paying the Piper: The Proceedings of the Fourth Symposium is available from ARL on a prepaid basis for $32 (US and Canada) or $47 (others). Orders should be sent to ARL Publications, Dept. 0692, Washington, DC 20073-0692.

COALITION FOR NETWORKED INFORMATION

Paul Evan Peters, Executive Director

INTERNET SECURITY AND PRIVACY

Recent news reports have brought increasing attention to the vulnerability of the Internet to hackers and others who intentionally wish to violate the security of the Internet and the servers of institutions and organizations. Less attention is given to existing efforts to develop both technical solutions and policies to address these and other concerns. At the Coalition's Fall Task Force Meeting in Orlando on November 29-30, 1994, several experts provided attendees with an overview of projects and issues pertaining to network security and privacy.

In his introduction of the panel, CNI Executive Director Paul Evan Peters commented that strategies for addressing security and privacy threats in networked environments frequently address three mechanical components (the clients, servers, and networks) and two non-mechanical components (the users and providers). These strategies are formulated and pursued with an awareness that most threats in cyberspace today are decidedly low-tech and that the organizational problems of building and managing secure and private systems are so difficult that they frustrate any purely technical solution.

We're Not in Kansas Anymore!

Bill Ruh, Associate Technical Director and Director, Workstation Systems Engineering Center, Mitre Corporation, spoke about the Internet and security from his perspective at Mitre, a non-profit think tank that works on projects for the federal government. His talk, "We're not in Kansas Anymore!" used the analogies of small town and urban America to describe attitudes and security concerns in the Internet. Ruh stated that the early Internet culture was similar to that found in small town America where everybody knew everybody else and people left their doors unlocked. This tendency was operationalized in the Internet by means of guest accounts and anonymous FTP. However, the Internet has now become a suburbia where there are lots of new people, and even a few "bad influences" and isolated incidents. In the Internet, we now lock our doors by giving people access, but controlling that access. We have a neighborhood watch program for security that includes an Internet firewalls mailing list, a Computer Emergency Response Team (CERT), and a Computer Incident Advisory Committee (CIAC).

Ruh commented that we are emerging into a "Bright Lights, Big City" scenario where there will be millions of inhabitants, rising crime rates with no police force (and a federal government ignoring its role in this area), and a resulting move towards electronic security and private communities. The Internet population is changing and there will be more and more computer crime. As commerce comes online, this will become a more serious issue.

Firewalls

Providing security measures requires a balancing act, preserving the positive features of the network such as open lines of communication and collaboration, while ensuring the safety of our information assets. Ruh feels that we are moving into an era where we can balance these factors, primarily through the use of firewalls: a computer or a set of computers that control(s) the flow of network traffic in and out of the local community. Typical firewall capabilities are: access control, network service restrictions, user authentication, and transaction logging. Today there are over thirty different firewall products, a tripling of a year ago.

Benefits of firewalls include:

- creation of a barrier (or network "fence") that prevents unauthorized intrusion;
- access to Internet resources in controlled manner; and,
- reduction of the "zone of risk" to firewall components.

Drawbacks of firewalls include:

- lack of complete commercial firewall solutions;
- unavailable firewall techniques for some protocols;
- need for security management responsibilities, e.g. authentication management, log reviews; and,
- negative impact on performance and user needs, e.g. popular network applications may not immediately be allowed by the firewall.

Ruh concluded with a recommendation that institutions implement firewalls and noted that they are critical in situations where there are personnel records and copyrighted information.

Common Solutions

Raman Khanna, Director, Distributed Computing and Communication Systems, Stanford University, described the work of the Common Solutions Group's (CSG) Authentication Project. The CSG, which has both representatives of individual universities and other organizations such as EDUCOM, NTTF, CREN, and CNI, is working on inter-institutional authentication. The group has been formed to collaborate on the definition, development, and deployment of a higher education information infrastructure and development of middleware for higher education. The authentication project will architect an inter-institutional security infrastructure which will: provide the capability for secure, unambiguous universal identification of an actor for "store and forward" interactions, e.g. e-mail, for which we need public key technology; support privacy, integrity, and digital signatures; and, evaluate existing approaches, e.g. PEM (privacy enhanced mail) and PGP (pretty good privacy). The group has recommended the

PGP approach for store and forward transactions and they are using MIT's Kerberos-mediated PGP key-signing service. CSG wants to use its leverage to influence vendors on directions in this arena.

Intellectual Preservation

Peter Graham, Associate University Librarian for Technical and Networked Information Services, Rutgers University, discussed information authentication, or what he described as intellectual preservation. Graham noted that one of the library's missions is to ensure that information is preserved in the form for which it was intended. Librarians work to preserve the intellectual content of materials well beyond the timeframe of their own lives. Graham divided the work of preservation into three categories. In "medium preservation," the problem is the decay of the artifact itself, (e.g. paper, magnetic tape), and the solution is to "refresh" the information. In "technology preservation," the problem is obsolescence, (e.g. new media and data structures), and the solution is to migrate the information. In "intellectual preservation," the problem is the malleability of information, (e.g. accidental updates, version control, and fraud), and the solution Graham proposed is digital time-stamping.

Digital Time Stamping

Graham stated that two solutions commonly proposed for intellectual preservation are encryption, which can require a private key and thereby restricts access to information resources, and digital signatures, which require secrecy and encrypted records. Digital time-stamping is an authentication solution that combines two techniques: "hashing" digital content and engaging in a "widely-witnessed event." Digital time-stamping, a generic name for a process developed at BellCore, can be used for public or private documents and there is no need for trust between the producer and user.

Federal Policy

David Peyton, Vice President, Processing and Networking Services Division, Information Technology Association of America (an association that represents computer software and service companies), presented a round-up of the status of security and privacy issues in the federal arena.

He discussed three specific security issues:

- Digital telephony ("FBI Wiretapping") - A middle-of-the-road law (PL103-414) was passed this year to retrofit the existing public network and to engineer for the future.
- Message protection ("Clipper Chip") - The Administration feels that the current data encryption standard needs to be updated, and it has promoted the Clipper Chip, which Peyton said "flunks every user acceptance test," in this light. The Administration seems to be pulling back from its preference for the Clipper Chip, but it is not clear where things actually stand.
- Digital signature protection - In the absence of a Federal standard, most firms in the computer industry have licensed implementations of a commercial standard in this area. Unfortunately, NIST proposed something totally different.

The three privacy issues he discussed were:

- Application areas - In the health care reform discussions, there was a general consensus that privacy issues should be addressed. In the new Congress, in which health care reform is not thought to be a priority, we will need a new bill to frame privacy concerns in this area. Transportation provides a second excellent example of how privacy issues surface in application area. Intelligent vehicle systems (IVHS) will generate huge databases of very personal information about an individual's movements, which can be used for both good and bad purposes.
- Workplace issues - Monitoring of electronic mail by employers is becoming an issue on the minds of more and more Americans, but bills protecting employees died a quiet death in the last Congress.
- Direct marketing - Indiscriminate solicitation of business on the Internet is an issue that may soon come under Congress scrutiny, as telemarketing has before it.

Additional Information

Many documents from the Fall 1994 Task Force Meting are available on the Coalition's Internet server.

- If you access the Coalition's server by gopher, point your gopher client to gopher.cni.org 70 and follow this series of menus:
  Coalition FTP Archives (ftp.cni.org)
  Coalition Task Force Meetings
  (/CNI/tf.meetings)
  Fall, 1994 Meeting of the Coalition Task Force
- If you choose to access the materials via NCSA Mosaic (or some other browser) and WWW, you can use this URL to access a HTML formatted document: http://www.cni.org/tf.meetings/1994b.fall/www/sumrpt.html
- If you choose to access the materials via FTP, browse the following directory on host ftp.cni.org: /CNI/tf.meetings/1994b.fall

—Joan Lippincott, Assistant Executive Director

STATISTICS & MEASUREMENT

Martha Kyrillidou, Program Officer for Statistics and Measurement

NCES DESCRIBES U.S. HIGHER EDUCATION

The U.S. National Center for Educational Statistics (NCES) collects a variety of data to describe the social, demographic, and economic trends affecting higher education in the United States. Traditionally, NCES has monitored patterns of institutional characteristics; more recently, however, the agency has added studies that track characteristics and performance of individual faculty and students. The result is a rich resource of large datasets describing the various constituencies in higher education, i.e. institutions, graduate and undergraduate students, and faculty. Some of the major datasets available from NCES are briefly described below.

The major source of institutional information on higher education in the U.S. is the *IPEDS (Integrated Postsecondary Education Data System)*, a series of eight surveys on various aspects of university characteristics, including libraries. Data on academic libraries are available on a biannual basis and the latest, just released, are the 1992 data. The biannual schedule for the academic libraries data compilation and its tardy release limit its usefulness, but it is the only effort underway to collect data on the universe of academic libraries, and thus is of great importance. For an illustration of the use of academic libraries data, see the accompanying table on academic library resources. The other parts of IPEDS cover the following areas: Institutional Characteristics; Fall Enrollment; Fall Enrollment in Occupational-specific Programs; Completions; Salaries, Tenure, and Fringe Benefits of Full-time Instructional Faculty; Financial Statistics; and Fall Staff.

NCES also collects data describing students and faculty, their characteristics, and their achievements. These datasets are a rich source of information that may be of use to research libraries.

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive, nationwide study of 70,000 undergraduate, graduate, and first-professional student demographics, family income, education expenses, employment, education aspirations, parental demographic characteristics, parental support, and how students and their families meet the costs of postsecondary education. In addition to describing characteristics of students enrolled in postsecondary education, the results are used in part to help determine future federal policies regarding student financial aid. NPSAS surveys were conducted in 1986-87, 1989-90, and 1992-93. NPSAS surveys are scheduled for 1995-96 and 2000-01.

During the last five years, NCES has created two longitudinal datasets to enhance the base of information on student persistence, progress, and attainment from initial entry into postsecondary education to transition between undergraduate and graduate education, through leaving and entering the workforce. *The Beginning Postsecondary Student Longitudinal Study (BPS)* and the *Baccalaureate and Beyond (B&B)* survey address questions related to persistence such as: Do students who are part-time or discontinuous attendees have the same educational goals as full-time, consistent attendees? Are students who change majors more or less likely to persist? Are nontraditional students more or less likely to persist than more traditional counterparts? In the area of progress and curriculum, questions addressed include: What is the "normal" rate of academic progress? What educational experiences are related to "normal" and consistent progress? Is likelihood of transfer between institutions related to academic majors? Attainment/outcome questions include: What educational experiences encourage completion? How long does it take to complete the program?

The National Study of Postsecondary Faculty (NSOPF) was designed to provide data about faculty. The most recent cycle gathered information about approximately 30,000 faculty from 950 institutions. NSOPF can be used to analyze whether the postsecondary labor force is declining or increasing. It can also be used to analyze faculty job satisfaction and how it correlates with an area of specialization; and how background and specialization skills relate to current assignments. Comparisons can be made on academic rank and outside employment.

An annual *Survey of Earned Doctorates Awarded in the United States* is of relevance to research libraries because of the typically intense nature of the demands doctoral candidates place on library resources. The survey collects basic statistics about the universe of doctoral recipients in the United States each year since 1920s. From this data it is possible to determine whether the number of doctoral recipients is increasing or decreasing, by field of study. The various sources of financial aid for doctoral students can also be assessed, as can the average time it takes to complete the degree.

There is little research that relates library resources and services to educational persistence, progress, and attainment. An examination of NCES and other education assessment efforts that are focused on institutional and individual performance, may help guide academic and research library efforts to measure how they contribute to the performance of students, faculty, and researchers.

For more information about the datasets described in this article, contact the following staff in the NCES Division of Postsecondary Education Statistics.

IPEDS
Academic Libraries: Jeffrey Williams, 202-219-1362
Other surveys: Roslyn Korb, 202-219-1587

NPSAS
Andrew G. Malizio, 202-219-1448

BPS and B&B
Paula Knepper, 202-219-1914

NSOPF
Linda J. Zimbler, 202-219-1834

Survey of Earned Doctorates
Nancy Schantz, 202-219-1590

U.S. Academic Library Resources in 1992

As of 1992, resources invested in 95 U.S. ARL libraries accounted for over 50% of the resources available in 500 libraries in all U.S. doctoral granting institutions, and a bit less than 40% of the resources available in all U.S. academic libraries. The ARL libraries support a wide range of research programs and many are among the earliest established libraries in the country; consequently, they tend to have more resources per student.

Resources	ARL Academic Libraries (95 ARL libraries)	Doctoral Granting Institutions (500 libraries including ARL libraries)	All Academic Libraries (3,274 libraries including ARL libraries)
TOTALS			
Total Expenditures	$1,3 billion	$2,3 billion	$3,6 billion
Total Expenditures for Salaries	$674 million	$1,1 billion	$1,9 billion
Expenditures for Serials	$274 million	$467 million	$639 million
Volumes held	294 million	471 million	749 million
Total staff	30,592	52,000	96,000
Professionals	8,204	14,000	26,000
Support	14,883	24,000	40,000
Student Assistants	7,505	14,000	29,000
Interlibrary lending	2,846,071	5,256,676	7,987,047
Interlibrary borrowing	1,251,957	2,756,658	5,304,680
MEDIANS			
Percent of Expenditures for Lib. Mat.	35	34	30
Percent of Expenditures for Salaries	49	50	57
Resources per student			
Library Expenditures	$689	$519	$263
Expenditures for Library Materials	$241	$182	$75
Expenditures for Serials	$152	$100	$27
Volumes held	149	101	58
Volumes added	4	3	1.5
Staff per 1,000 students	15	10	6

This comparison is based on data from two datasets: the recently published IPEDS Academic Libraries: 1992 and the ARL Statistics 1991-92. There are enough similarities between the two datasets to make a general comparison, such as the above, meaningful.

Reaching Out

The ARL Statistics and Measurement Program recently hosted the first meeting of ARL library survey coordinators. The gathering was in conjunction with the ALA Midwinter Meeting in Philadelphia, and was attended by more than 70 representatives from ARL libraries. William Crowe, Chair of the Statistics and Measurement Committee and Dean of the University of Kansas Libraries, opened the event by describing recent developments in the program. The appointment of a full-time program officer and the adoption of a new, ARL strategic objective "to describe and measure the contribution of research libraries to teaching, research, scholarship, and community service," signify an increased commitment to the program. He also noted that the program has operated very successfully because of the major contribution of the two consultants, Gordon Fretwell, University of Massachusetts, and Kendon Stubbs, University of Virginia.

Mr. Crowe then introduced Stanley Wilder, Assistant Dean for Financial and Technical Services at Louisiana State University Libraries, who is currently serving as a Visiting Program Officer. Mr. Wilder presented an overview of his study to understand the demographic patterns of librarians and project retirement patterns. Preliminary results indicate that librarians are much older than faculty, and ARL female librarians are older than male librarians. This project is expected to be completed this year.

Martha Kyrillidou, Program Officer for Statistics and Measurements highlighted some of the changes that are under discussion within the program and asked for survey coordinator feedback.

Plans call for organizing another meeting in Chicago, in conjunction with the ALA annual conference.

Office of Management Services

Susan Jurow, Director

Dartmouth Library and Computing Retreat Kicks Off Joint Planning, Projects

The library and computing departments of Dartmouth College have embarked on what is hoped will be a long and mutually satisfying endeavor: an exploration of collaboration within the changing environment of scholarly communication and research.

Collaboration between the two units is not a new phenomenon; the Dartmouth College Information System is a testament to their established ability to work together. Trends in their respective areas, however, have prompted a renewed interest in deepening ties. During the past decade, advances in information technology and changes in the patterns of scholarly communication have altered the roles and responsibilities of computer centers and libraries at many institutions. Dartmouth has been no exception, and its leaders have recognized the high stakes involved.

In October 1994, Margaret Otto, Librarian of the College, Larry Levine, Director of Computing, John James, Director of Collection Services, and Malcolm Brown, Director of Academic Computing, attended a "planning retreat" for library and information technology professionals sponsored by the Coalition for Networked Information (CNI). Conducted by Susan Jurow, Director of the ARL's Office of Management Services, and Gerry Bernbom, Assistant Director of Data Administration at Indiana University, the goals of the program were to help library and information technology professionals identify areas of collaboration and to take advantage of the identified opportunities to improve information services provided to the participants' user communities. Otto and Levine were so stimulated by the sessions that they decided to bring home their renewed enthusiasm and to make a commitment to pursue joint opportunities at Dartmouth.

As a first step toward truly active and effective collaboration, Otto and Levine invited Jurow to assist them in building cooperative relationships between members of their organizations. In December, Jurow conducted an on-site planning retreat for nearly 40 professionals from Dartmouth's Library and Computing Services departments with these objectives in mind: to identify issues in which both organizations are stakeholders, to encourage collaboration at all levels of the organizations, and to begin long-range planning for joint action.

The day-long retreat included a variety of discussions, brainstorming, and goal-setting sessions, as well as break-out group analyses of case studies, presentations, and evaluations. One of the most profitable exercises of the day was the introduction of each participant. Despite Dartmouth's relatively small size, a majority of the participants were relative strangers to each other prior to the retreat. Now able to associate names with faces, participants have established a better understanding of both organizations and a higher degree of empathy for the problems and challenges facing each participant. The day set the stage for a continuing effort to create bridges between and within each organization and to launch projects with tangible results.

Participants from both organizations are enthusiastic about the challenges and opportunities offered by working together and the very real potential for successful collaboration. Motivating these efforts is the desire to be partners in a true sense, recognizing that this entails mutual risk, mutual gain, and compromise. Dartmouth's leaders and retreat participants believe that they have begun to create the strongest of foundations for a mutually beneficial and rewarding relationship, one that clearly brings two diverse organizations together through synergy and innovation. Indeed, if the two organizations are to be successful, such collaboration is absolutely essential.

For more information about Dartmouth's plans, contact Margaret Otto or Larry Levine at Dartmouth College (margaret.otto@dartmouth.edu, and larry.levine@dartmouth.edu). For information about the planning retreats, contact Susan Jurow at ARL (susan@cni.org).

New OMS Publications

SPEC Kit #206, *Faculty Organizations in ARL Libraries: Activities and Documents*, contains information on the library faculty organization structure, function, and activities of the library faculty organizations in the 32 ARL institutions that offer librarians faculty status with tenure eligibility. Included are an in-depth survey analysis, models of 14 library faculty organization bylaws and constitutions, and a useful selected readings list.

Occasional Paper #17, *Information Desks in Academic Research Libraries* (supplement to SPEC Kit #172), presents the placement, design, staffing, and function of information desks at eight ARL institutions. Information desks are examined as a method of reducing routine inquiries presented to other library service points, counteracting the demands on librarians from the exponential growth of information resources, and offsetting decreased library budgets.

Individual SPEC Kits are $40 ($25 ARL members) and Occasional Papers are $25 ($18 ARL members). Add $5 shipping and handling per publication. For information on these and other OMS products, contact the Publications Department at (202) 296-2296 or e-mail arlhq@cni.org. Send prepaid orders to ARL Publications, Department #0692, Washington, DC 20073-0692.

OMS Training Programs 1995

Facilitation Skills Institute*
May 15-17, Atlanta; $350

Management Skills Institute I: The Manager
June 5-8, Denver; $490

Women in Library Leadership*
July 25-28, Kansas City; $490

Facilitating Change: The Internal Consultant*
September 11-13, Washington, DC; $350

Human Resources Institute: The HR Specialist*
October 4-6, Chicago; $350

Training Skills Institute: Managing the Learning Process
October 11-13, Boston; $400

Implementing Continuous Improvement Programs in Libraries
November 6-9, Atlanta; $490

Management Skills Institute II: The Management Process
November 13-17, St. Louis; $695

*New Programs

The registration fees noted are the rate for staff who work in ARL member libraries. These programs are open to others at a slightly higher fee. The fee includes all resource materials, but does not include lodging and transportation fees. Upon registration, participants will be given the information they will need to make their own arrangements for lodging and transportation.

To register for any of these programs, contact Christine Seebold, OMS Training Program Assistant, at 202-296-8656 (cseebold@cni.org).

Each of these programs may also be sponsored by a member library or by a group of libraries. To inquire about sponsoring or to make arrangements to do so, contact Maureen Sullivan, OMS Organizational Development Consultant, at 202-296-8656 (maureen@cni.org).

OMS Diversity and ARL Minority Recruitment and Retention Training Programs 1995

Search Committees and Minority Recruitment
June 22, Chicago; $125

Developing a Library Diversity Program: The Agenda and Role of Administration
August 10-11, Washington, DC; $250

Fostering a Climate in the Workplace for Diversity
August 14-15, Washington, DC; $250

Implementing Minority Recruitment Strategies
September 21-22, Washington, DC; $250

Implementing Minority Retention Strategies
September 25-26, Washington, DC; $250

Assessment and Design of Library Services for a Diverse User Population
November 2-3, Washington, DC; $250

Involving Staff in the Development of a Library-wide Diversity Program: Programs, Services, Collections, Committees, Staff Development, and Planning
November 6-7, Washington, DC; $250

The registration fees noted are the rate for staff who work in ARL member libraries. These programs are open to others at a slightly higher fee. The fee includes all resource materials, but does not include lodging and transportation fees. Upon request, registrants may obtain information to assist in making their own lodging arrangements.

Each program will be conducted by Kriza Jennings, Program Officer for Diversity and Minority Recruitment. To register, contact Marianne Seales, OMS Program Assistant, at 202-296-8656 (marianne@cni.org).

FEDERAL RELATIONS

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

TIIAP GRANTS INFORMATION AVAILABLE

The Department of Commerce's Telecommunication and Information Infrastructure Assistance Program (TIIAP) will "provide matching grants to state and local governments, health care providers, school districts, libraries, universities, community organizations, public safety services, and other non-profit entities to help them access and use new telecommunications technologies." $64 million was appropriated for the program for FY 1996, with different deadlines for each type of grant application filed. Recent House appropriations actions cut that figure to $30 million.

Applications are available from TIIAP, Room 6043, 14th and Constitution Ave, NW, Washington, DC 20230; or call 202-482-2048 or fax 202-501-5136. E-mail inquiries may be sent to tiiap@ntia.doc.gov; telnet, gopher, or WWW at ntia.doc.gov or iitf.doc.gov.

LIBRARIES, UNIVERSITIES REVISIT SHORTCOMINGS OF "GREEN PAPER" ON INTELLECTUAL PROPERTY AND THE NII

With the final report of the ITTF Working Group on Intellectual Property and the National Information Infrastructure due to be written this spring, eight associations representing libraries and universities sent a joint letter to the Clinton Administration reiterating and summarizing significant points of disagreement with the findings in the draft Working Group report, frequently referred to as the "Green Paper." (See *ARL* #177, p. 7, for background.) A memorandum, included as part of the letter, summarizes comments from library, educational, and corporate organizations on three key issues: fair use, electronic transmission rights, and the first sale doctrine. The letter, and the five-page memo, are available on the ARL Gopher (arl.cni.org). In response to the contact, the Administration signaled a willingness to discuss these concerns with representatives of the library and university communities.

UPDATES

Paperwork Reduction Act:
The Paperwork Reduction Act (PRA) of 1995, H.R. 830, introduced on February 6, passed the House on February 22. The PRA sets federal policy with regard to government information collection and maintenance, as well as government statistical and information dissemination programs. Public interest and library groups successfully opposed amendments to curtail access to agency data files. Problematic provisions remain, however, including one that grants agencies waivers to charge fees for government information that exceed the costs of access or dissemination. ARL, AALL, ALA, and SLA wrote to the Administrator of OIRA/OMB and to members of Congress opposing this provision.

Communications Decency Act:
Sens. Exon (R-Nebraska) and Gorton (R-Washington) introduced S. 314, the Communications Decency Act of 1995. The bill seeks to "protect the public from the misuse of the telecommunications network and telecommunications devices and facilities." In a recent statement, Sen. Exon noted that he did not intend the bill to bring new third party liabilities into play (e.g. universities). Kent Hendrickson, Dean of Libraries, University of Nebraska-Lincoln, Prue Adler, ARL Assistant Executive Director, Federal Relations and Information Policy, and others in the education community met with Sen. Exon and his staff to discuss serious reservations about the bill.

Reorganizing GPO:
H.R.24, introduced by Rep. Klug (R-Wisconsin) seeks to initiate legislation to transfer executive branch printing from the Government Printing Office (GPO) to the General Services Administration; transfer the function of the Superintendent of Documents, including the depository library program, to the Library of Congress; significantly reduce in-house printing at GPO with a concomitant reduction in the GPO workforce; and increase the amount of congressional printing procured from the private sector. This House resolution closely resembles legislation introduced last session, H.R. 3400 (see *ARL* 172, pp 8-9 for background).

H.R. 1024, a bill to improve the dissemination of information and printing procedures of the Government, was introduced by Rep. Dunn (R-Washington) on February 23. The bill proposes to strengthen the Superintendent of Documents program; phase out the Joint Committee on Printing; eliminate GPO's role as a printer of government documents; continue GPO's role as the central source for printing procurement for the government; and other related provisions. The bill calls for all Congressional, Executive, and Judiciary Branch printing (with the exception of the Supreme Court) to be procured from the private sector.

In a joint hearing of the House and Senate Subcommittees on the Legislative Branch, on February 2, members explored the various roles of legislative branch agencies and possible ways to reduce redundancy and increase efficiency in their services. There will likely be additional hearings and bills on how to reorganize legislative branch activities and functions.

ARL Activities

G. Jaia Barrett, Deputy Executive Director

Private Sector, Librarians Focus on Technology Applications for ILL/DD Management

Six developers discussed new products and services with nearly 50 directors and senior staff from ARL libraries at a meeting organized by ARL's North American Interlibrary Loan and Document Delivery (NAILDD) Project. The half day meeting, held February 3, provided an opportunity for members of the NAILDD Project's Developers/Implementors Group (DIG) to get feedback from research library leadership on new products that seek to meet or advance the project's technical priorities (ILL/DD internal management software, financial/accounting software, and interconnectivity or linkages among systems). In the afternoon, the full DIG , representing over 45 organizations, met to review collaborative approaches to achieve the project's priorities.

Highlights reported during the Forum and DIG meeting include:

- ISM Library Information Services will release a U.S. version of AVISO, an ILL/DD management software, in June;
- OCLC will implement an ILL Fee Management System in April; and
- Jim McDonald, OCLC, on behalf of the DIG, has prepared a "generic" Internet form for individuals to use in emailing ILL/DD requests to libraries and other suppliers. After comment from the DIG Standards Working Group, the draft will be distributed as an informational Internet RFC, and tested.

The project encourages competition among DIG members to meet the technical priorities for management and financial/accounting software. At the same time, the project encourages collaboration among the DIG members to pursue linkages between and among ILL/DD utilities, ILL/DD management software, and local systems. More information on the NAILDD Project is posted on the ARL Gopher (arl.cni.org) or is available from Project Director Mary E. Jackson (mary@cni.org).

ARL-Announce

ARL now offers an electronic service called *ARL-Announce*. This service provides updates on Association activities, projects, and reports. By subscribing, you will receive information on items such as: previews and highlights of newly-released publications, notices of new items on the Gopher, OMS training schedules, summaries of workshops and conferences, and updates on ARL projects.

To subscribe, send a message to listproc@cni.org. The text of your message should read "subscribe arl-announce (your name)." For more information, contact Patricia Brennan, ARL Information Services Coordinator (patricia@cni.org).

Conference to Examine the Economics of Information

ARL, in partnership with the SUNY University Center Libraries and the Council on Library Resources, will sponsor a conference entitled "Challenging Marketplace Solutions to Problems in the Economics of Information" in Washington, DC, September 18-19, 1995. The conference will bring together academic officers, chief information officers and other administrators, economists, librarians, and computing professionals to examine issues related to the development of the knowledge infrastructure and their economic impact on higher education.

Participants will explore the role higher education can play in the public policy debates on the economics of information access and delivery. Case studies, demonstrations, and panel discussions by leading economists will examine the economic efficiency and cost/benefit of investments in the knowledge infrastructure, including print and electronic journals, library consortia, document delivery, and network resources and services for research universities and their libraries.

The conference will contribute to a research agenda for additional economic information needed for decision-making about knowledge infrastructure investments. Additional sponsors of the conference include the Coalition for Networked Information and the National Association of State Universities and Land Grant Colleges. The registration fee for the conference is $300. Registration material is available from Mary Jane Brooks, ARL, 21 Dupont Circle, Suite 800, Washington, DC 20036 (maryjane@cni.org).

Transitions

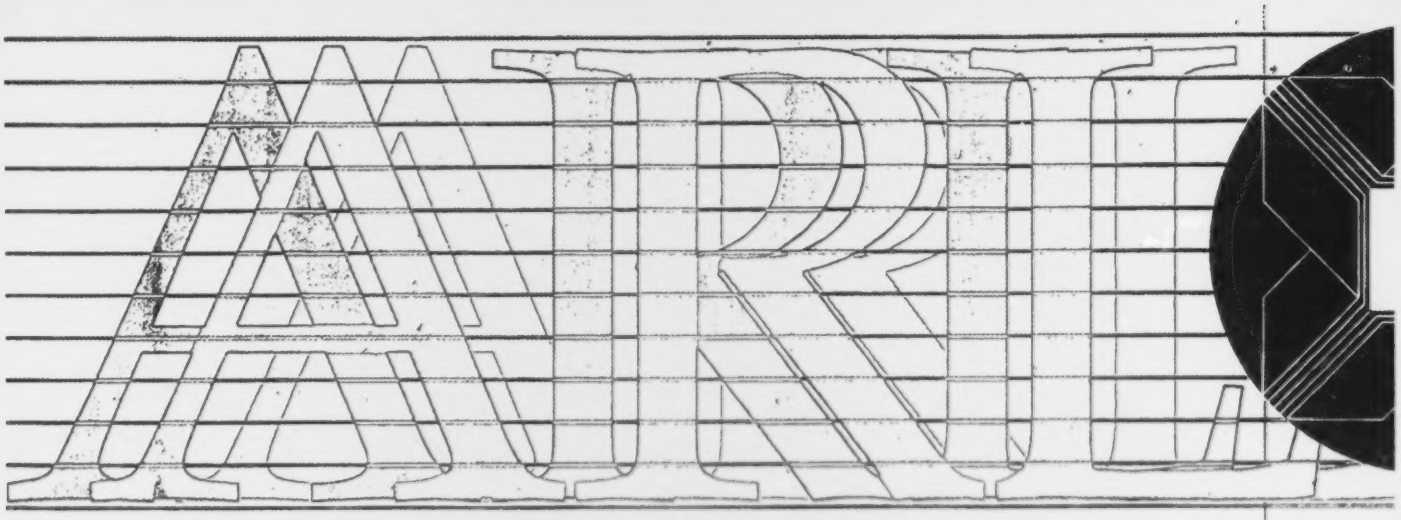
Wayne State: Patricia Senn Breivik was appointed Dean of Libraries and Library Science effective June 1. Dr. Breivik is currently Associate Vice President for Information Resources at Towson State University, and is President-elect of ACRL. She succeeds Peter Spyers-Duran, who is retiring.

***

Commission on Preservation and Access, Council on Library Resources: The Boards of CPA and CLR approved an affiliation between the two organizations, with the first step being a joint presidency. Deanna B. Marcum has agreed to serve as President of both CPA and CLR effective March 1. M. Stuart Lynn will continue to work with CPA on the Digital Preservation Consortium and the Task Force on Archiving of Digital Information.

Honors

Waterloo: The University of Waterloo Library was awarded the Ontario Library and Information Technology Association 1994 Award for Information Innvovation for their World Wide Web based Electronic Library. UWELib can be accessed at http://www.lib.uwaterloo.ca/.



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ARL Calendar

April 6-7	NationalNet *Reaching Everyone* Washington, DC
April 10-11	Coalition for Networked Information Spring Task Force Meeting Washington, DC
May 9	Library Legislative Day Washington, DC
May 17-19	**ARL Board and Membership Meeting** **Boston, MA**
June 22-29	American Library Association Chicago, IL
July 24-25	**ARL Board Meeting** **Washington, DC**
August 22-26	IFLA Annual Conference Istanbul, Turkey
October 18-20	**ARL Board and Membership Meeting** **Washington, DC**
October 30-31	Coalition for Networked Information Fall Task Force Meeting Portland, OR
November 28 - December 1	CAUSE95 *Realizing the Potential of Information Resources: Information, Technology, and Services* New Orleans, LA

ARL at ACRL

Stop by the ARL Booth (#256) at the ACRL 7th National Conference in Pittsburgh, March 29-April 1. A focus this year is Careers in Academic and Research Libraries: ARL & OMS Minority Recruitment Initiatives.

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A BIMONTHLY NEWSLETTER OF RESEARCH LIBRARY ISSUES AND ACTIONS

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Current Issues

COMPUTERS AND SCHOLARSHIP: A PSEUDO-HYPERTEXT IN TEN PARTS

by Stephen Hilliard, Professor, Department of English, University of Nebraska–Lincoln (hilliard@unl.edu)

In February, 1995, the University of Nebraska–Lincoln Library in cooperation with the University of Nebraska Press and the Chancellor, sponsored a day-long invitational Scholarly Communications program for the campus. Part of the program was the following "mythical" dialogue between a distinguished senior professor and an ambitious assistant professor. Running against the background of a contemporary "chorus," the dialogue captures the quandaries of the modern academic rewards system. –Ann Okerson

1. The Crystal Ball is Murky:

Futurist thinking about computers and other electronic technologies is distorted by utopianism — wherein we foresee the future we would like to have — and technological determinism — wherein we imagine that the potentials of the technology determine its applications. In fact, institutional and economic forces will have a major influence on how electronic technologies are adapted to our needs. Within universities, institutional imperatives will slow and distort the effect of the technologies for years to come. For example, it is easy to say that traditional publication is dead and that an era of electronic communications has arrived. We may wish that this were true and think that technology demands that it be true, but the needs of the academy for the certification of scholars and scholarship will continue. This poses a dilemma: the university as a system will resist changes that need to be made for the good of students, scholarship and society. Universities do change, but the change often occurs because of individual acts of foolhardy courage.

2. A Senior Professor's Advice to an Assistant Professor:

In the English Department Library a senior professor talks to a newly-hired assistant professor who says she wants to use computers as an essential part of her work, not just for word processing and e-mail. The senior professor arches his gray eyebrows in disapproval: "Computers are finally just fancy machines that will do what we want if we don't get misled by enthusiasts. Don't be the first person to come up for tenure in English with a portfolio of electronic publications. Hold off on that hypertext, multi-authored edition of Hamlet. Do the monograph on the image of the king in Shakespeare — that will prove you are one of us. The computer project won't work out the way you picture it, and, even if it did, the tenured faculty will not see it as showing what you and you alone can do."

3. The Computer as Labor-Saving Device:

It is true that the labor computers save us is often less than the labor they create. I have never known anyone who learned to use a computer for word processing who decided to go back to the typewriter. But I have known many people who have regretted venturing very far into cyberspace. At first, computers are user-friendly, like a path lined with flowers, but soon the flowers give way to quicksand. Work that required programming is always twice as difficult as we first imagined and it is very hard to match our efforts with the steep curve of technological development. There is as much danger in getting too far ahead of the curve as there is in falling behind. In addition, our need to understand computers and other new technologies is overlaid on all the other demands being made on us. How many of us are hearing about what is coming at us with an inward groan? Have computers made your life easier?

Continued

4. More Advice from the Senior Professor:
"I am troubled about the future of our profession. As I understand it, the half-life of knowledge in the technical end of computer science is under 5 years. During my career as an English professor, the half-life of knowledge was a life time; now I would guess it is roughly a decade and the rate of change grows faster, in part because of computers. In the new rush to keep up with scholarship and publish one's own work, the whole point of literature and books is being lost. A book is an object one can love; an electronic text is an insubstantial flow of words to be used and even manipulated. Your career will be in a brave new world where being an English professor is as volatile and pressure-cooked as being a scientist. Mind you, the life of scientists gets even harder. When you are working late at night in the library, look across and see how many lights are still burning in the chemistry building."

5. The Effect of Electronic Technologies on Scholarship:
Scholarly communication as we know it, the typed manuscript and printed page, will not disappear, but it will be made subordinate to electronic texts, just as the spoken word still lives at conferences, but has been made subordinate to the written word. The change will add up to much more than a simple alternative to conventional publication. In the process, rhetoric will change; the nature of academic work will change. William Gibson's science fiction novels, in which people enter cyberspace, prefigure a truth: the computer as a data base and the thousands of other scholars networked with us are becoming active partners in our scholarly work. The role of author as authority is becoming more provisional because electronic texts are fluid and easy to revise. As knowledge becomes plastic, our access to it also becomes more dynamic and engrossing. Most of us already know what it means to be engrossed by computers, to lose ourselves in cyberspace, even if it is just in games or e-mail backchat. But the "self" we lose temporarily is a construct of the western tradition, subject to being lost permanently. The next generation of scholars will develop a "self" rather different from the academic self that felt so comfortable with the printed word.

6. The Assistant Professor Replies:
"But you see I don't really want to do a conventional monograph on Shakespeare—I don't really believe in the singular truth, the mono-truth that it would inscribe. I don't want to sit in Love Library late at night, copying ideas from books onto note cards so I can reassemble them in my own egocentric way. I like the excitement of a rapid exchange of ideas among colleagues over the Internet and the sense of a group of us closing in on a part of a truth. I love literature and, yes, books, but when I hold one of the older works of scholarship in my hands, I cannot identify with the mind-set that produced it. Most scholarly books seem so inert; their authors people puffed up with themselves. And if I force myself to write the monograph, will anyone want to publish it?"

7. The Role of English Professors:
As Richard Lanham has pointed out, English professors have a role to play in the advent of the age of electronic communications, but the need for them has been obscured by the focus on science and technology. As rhetoricians, we have much to say about the ways computers are affecting texts and the uses of language in texts. As theorists and critics, we are already addressing the deeper sea changes in thought that are unfolding. Art and literature often prefigure social changes, and postmodernism prefigures the development of computer technology. Much recent theory in literary studies is remarkably congruent with the issues raised by theorists about the impact of computers, even though the literary theory predates the advent of the personal computer.

8. Digression: A Dialogue on Teaching:
The Senior Professor: "Why promote a technology that is fragmenting the thinking of our students and cutting them off from their heritage? English professors understand that new ways of thinking and being are in large part old ways. We can best contribute to the future of our students by stressing continuities with the past."

The Assistant Professor: "I disagree, we will lose our relevance if we resist this fundamental change in the way our students think and live. My sense of the needs of students is at odds with the classrooms I teach in and the way I am expected to do my own work. We are preparing students for the twenty-first century, but teaching and writing in the modes of the nineteenth century. The formal essay in the composition classes is ill-suited to students who will spend their lives composing electronic hypertexts with images and sounds as well as words. The lecture/recitation approach to teaching literature also seems out of touch with the way my students are already living their lives."

The Senior Professor: "English departments took the lead in developing multicultural education and have been roundly thwacked for it. Our colleagues in other departments and the public won't look kindly on your abandoning the conventional essay and the conventional class. English could stand a few years without any controversy."

9. Technologies and the Culture War:
The recent articles and books attacking the university in the name of Great Books and Political Correctness direct much of their criticism at English departments. These controversies have been dubbed a culture war. They are in part expressions of fear about basic shifts in the para-

digms of western thought, shifts driven more by the advent of electronic technologies (and by changes in the structure of our society) than by the ideas of literary theorists. Newt Gingrich and the Tofflers notwithstanding, the outcome of these shifts in the way we think and work are still up for grabs. The "third wave" need not swamp us if we stay at the helm.

Universities are the major counterforce to the commercial interests that want to manage the applications of new forms of electronic communications to American life with all the vision and depth with which they introduced television in the 1940's and 1950's. We academics have much to say about how intellectual resources are utilized in a high-tech society and about what should be salvaged from the past. At this symposium we are focused on the economics of publishing and storing texts, but the potential costs of our reluctance to be innovative cannot be calculated in dollars alone.

10. Final Words from the Assistant Professor:
"I'd be a fool not to worry about tenure, given the job market in my area, but I am also fascinated by the challenge of playing a role in the shaping of a new age. If humanists don't become involved in the applications of electronic technology to human knowledge, much of what we value may be lost. So I face a choice: a prudent career strategy with the Shakespeare monograph or a bolder vision of wrestling with the electronic future, like Jacob with the angel. Only I am afraid: Jacob deadlocked with the angel, wrestling through the night, and so was blessed and became a blessing to his people, but the Bible doesn't say what would have happened to him or his people if he had lost."

Ed. Note: A report summarizing the program on scholarly communications that was held at the University last February is available from Agnes Adams, Collection Development Coordinator, Library, University of Nebraska–Lincoln (Agnesa@unllib.unl.edu).

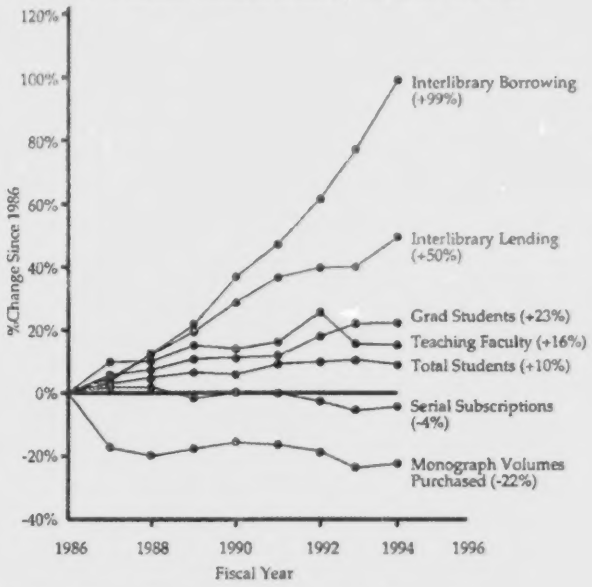
Trends in Research Library Acquisitions and ILL Services

by Martha Kyrillidou, Program Officer for Statistics and Measurement

The recently published *ARL Statistics 1993–94* presents an updated picture of the changes taking place in research library acquisitions and interlibrary loan services.

The two major trends that continue to impact research libraries are declining acquisitions of serials and monographs, resulting from double digit price increases for these materials, and growth in interlibrary loan activities. The acquisition of serials and monographs by ARL libraries has declined since 1986 by 4% and 22%, while

Supply and Demand In ARL Libraries, 1986-1994



Note: This graph compares growth in numbers of users with changes in on-site resources and resource sharing.

expenditures for serials and monographs have increased by 93% and 17%, respectively. During the same eight years, interlibrary borrowing increased 99% and lending increased 50% in ARL libraries.

Although libraries are buying fewer serials and monographs than they bought nine years ago, they are serving a larger body of users, 10% more students and 16% more faculty. The median number of students increased from 16,684 to 18,287, with the number of graduate students rising more rapidly. For the same time period, the median number of faculty increased by 180. In 1986 the median ARL library subscribed to 16,198 serials and bought about 33,200 monographs; in 1994 the median ARL library bought only 15,583 serials and 25,803 monographs for a larger number of both students and faculty.

Faculty and students borrowed on interlibrary loan almost twice as many items in 1994 as they did in 1986. Interlibrary borrowing by ARL libraries has a higher growth rate than lending, although the volume of borrowing activity is still less than half that of lending. Since 1986, the average annual growth rate for interlibrary borrowing was 9%; 5.2% for interlibrary lending.

Per student interlibrary borrowing activity increased 10% during the last year alone, compared to a 7.3%

average annual increase since 1986. By 1996 or 1997, research libraries may be borrowing twice as many items on a per student basis as they did ten years ago.

Dramatic as the increase in interlibrary loan activity for ARL libraries may seem, it is minor when compared to trends in other academic libraries in the United States.

The national (IPEDS) data for all U.S. academic libraries in 1988, 1990, and 1992 shows that U.S. ARL academic libraries filled about two of every five academic interlibrary lending transactions in 1988. It also shows that the ARL "share" has gradually decreased ever since. ARL libraries' share of the interlibrary lending of all academic libraries was 42% in 1988 but only 35% in 1992. Therefore, while interlibrary lending increased 21% in the U.S. ARL libraries from 1988 to 1992, it increased 43% for all academic libraries.

Also, one out of every four academic interlibrary borrowing transactions was initiated by an ARL library. U.S. ARL borrowing was 26% of the academic interlibrary borrowing activity in 1988, 28% in 1990, and 24% in 1992. There is not a clear downward trend in U.S. ARL borrowing activities as a percent of the national academic output of interlibrary borrowing, but there is some indication of a decline. U.S. ARL interlibrary borrowing increased 31% between 1988 and 1992, while the interlibrary borrowing activity for all academic libraries throughout the country increased 44%.

It is not clear why interlibrary lending and borrowing is increasing at different rates in different libraries. One explanation can be that the volume of ARL interlibrary loan activity is so large that the growth potential is not as high as that for smaller libraries. But could there be other reasons as well? Are some libraries more efficient, providing better turnaround times? To what extent do fees for ILL services impact the volume of activity? Are faculty and student expectations more likely to be met at research institutions through local collections, whereas there is a greater need for remote resources at institutions with less comprehensive library collections? To what extent do consortia and statewide library systems contribute to different levels of activity? Whatever the reasons, the recent trends in interlibrary services suggest a growth in service[1] that seeks to take full advantage of distributed library resources.

ARL Statistics 1993–94 is available from ARL Publications for $25.00 for member libraries and $65.00 for nonmembers (plus $5.00 shipping and handling per publication).

INTERLIBRARY LOAN ACTIVITY IN U.S. ACADEMIC LIBRARIES

	ARL libraries (N = 95)	Libraries in Doctoral Granting Institutions *	ARL percent of Doctoral Granting	All academic libraries**	ARL percent of all academic libraries
Interlibrary lending					
1988	2,349,966	3,783,540	62%	5,590,321	42%
1990	2,736,198	4,584,543	60%	6,576,111	41%
1992	2,846,071	5,256,676	54%	7,987,047	35%
1994	3,040,829	N/A		N/A	
Interlibrary borrowing					
1988	950,508	1,943,905	49%	3,672,852	26%
1990	1,181,403	2,308,707	51%	4,199,269	28%
1992	1,251,957	2,756,658	45%	5,304,680	24%
1994	1,499,429	N/A		N/A	

* The number of libraries in doctoral granting institutions was 466 in 1988, 488 in 1990, and 500 in 1992.
** The number of all academic libraries was 3,438 in 1988, and 3,274 in 1990 and 1992.
Source of data: IPEDS Academic Libraries Survey and *ARL Statistics*.

[1] ARL experimental data collected for other service activities like circulation and reference transactions also show large increases. While interlibrary loan activity increases, it continues to be a small percent of a library's circulation activity. Interlibrary borrowing is, on average, about 2% of total circulation excluding reserve circulation.

Study Confirms Increased Homogeneity In Academic Library Acquisitions

by Anna H. Perrault, Associate Professor, School of Library and Information Science, University of South Florida.

Academic library collections in the U.S. are beginning to look more and more alike, according to doctoral dissertation research conducted by Anna Perrault.[1] The research analyzed changes in collecting patterns between 1985 and 1989 in the aggregated resources base of 72 ARL libraries. Data for the study were extracted from the 1991 edition of the OCLC/AMIGOS Collection Analysis CD system that contains 1.7 million bibliographic records of non-serial imprints for the ten year period 1979–1989.

The study establishes that there was a steep decline in foreign language acquisitions, a decrease in the percentage of unique titles in many subject areas, and an increased concentration on core materials. The overall decline in the rate of monographic acquisitions from 1985 to 1989 for the group of 72 ARL libraries was 27.76%. The humanities declined at the highest rate (31.98%), the social sciences (28.88%) at a lesser rate, with the sciences (15.81%) experiencing the lowest rate of decline. As a percentage of the total number of imprints, the humanities declined from a 40.14% share to a 37.79% share. The social sciences remained virtually static, but the sciences increased from 18.11% of total to 21.10%. Thus, by broad subject grouping, the sciences increased in proportion to the humanities and social sciences.

Foreign language imprints experienced a much greater decline than English language imprints. In 1985, the ratio of English to non-English imprints was 50/50, changing to 60/40 in 1989. While all foreign language groups in the study experienced steep declines, the three western languages of French, German, and Spanish declined less than Russian and the Asian languages (CJK), which had the highest rate of decline. (See accompanying table.)

The collecting pattern established for the foreign language groups was a clustering of titles in the history and literature of the geographic area in which the language is predominant. The strong place of American history and literature as core disciplines was reflected in lower rates of decline in those subjects. Disciplines with the lowest rates of decline — computer science, physics, general engineering, and medicine — had the highest number of holding libraries. The analysis by specific subject areas indicates that the group of 72 ARL libraries selected more titles in common in 1989 than in 1985 resulting in a greater concentration on a core of titles in central disciplines.

New Imprints by Language Grouping: Rate of Change Between 1985 and 1989

	1985	1989	Rate of Change
All imprints	144,879	104,660	-27.76%
English	72,802	63,820	-12.34%
Non-English	72,077	40,844	-43.33%
French	8,316	4,924	-40.79%
German	11,906	7,529	-36.76%
Spanish	9,545	6,342	-33.56%
Russian	7,717	3,975	-48.49%
CJK	9,580	4,822	-49.67%

The study indicates that in 1989, the 72 ARL libraries as a group added fewer titles, and fewer unique titles, but with a larger number of libraries acquiring the same title. The decrease in unique titles means less diversity in the collective resources base and thus more homogeneity in the distributed collections of the 72 ARL libraries. The research confirms the apprehension expressed in the Mellon study that "access to scholarly information may be narrowing" and that "pressures on acquisitions budgets will cause various research libraries to look more and more alike over time" resulting in a "decline in the richness of collections overall, not merely a decline in the range of holdings of any one library."[2]

The implication of the dissertation's findings for U.S. academic research libraries, with respect to all monographic publications but especially foreign imprints, is that it is misleading to assure researchers that a title can always be borrowed from or a photocopy supplied by another library. An access model of library service will not be effective if no library owns the material sought and if records and holdings do not appear in the utilities' databases which are the major resource sharing vehicles. Collective action is needed among the nation's academic libraries to insure the quality of the "national collection" for future research.

Ed. note: This research received the 1995 ALISE doctoral dissertation award.

[1] Anna H. Perrault. The Changing Print Resource Base of Academic Libraries in the United States: A Comparison of Collection Patterns in Seventy-two ARL Academic Libraries of Non-serial Imprints for the Years 1985 and 1989, Ph.D. dissertation, The Florida State University, 1994.

[2] Anthony M. Cummings, et al. University Libraries and Scholarly Communication: A Study Prepared for the Andrew M. Mellon Foundation ([Washington, DC:] Published by the Association of Research Libraries for The Andrew W. Mellon Foundation, 1992), 3.

Ann Okerson, Director

AAU/ARL INTELLECTUAL PROPERTY TASK FORCE CONVENED

In Spring of 1994, the presidents of the Association of American Universities (AAU) institutions and the directors of ARL libraries approved the report of the AAU Task Force on Intellectual Property Rights in an Electronic Environment. The Task Force recommended that university campuses explore new models for owning copyrighted information, examine and update their current copying and copyright ownership policies as appropriate, educate and inform the members of their communities more fully about copyright rights and responsibilities, and build closer ties with their own university press publishers and with scholarly and scientific societies in order to manage better the complex information environment that so powerfully impacts institutions of higher learning.

Last December, a follow-up IP Task Force was named, with Peter Nathan, Provost of the University of Iowa, continuing as Chair. The group met for the first time in mid-February, agreed to its charge, and began to shape activities and articulate outcomes for the two year phase of the follow-up.

Responsibilities of the New IP Task Force

Most of the elements of the charge derive from the recommendations of the April 1994 report. The first element in the Task Force charge is to provide resources and support to AAU and ARL member institutions to examine IP policies and practices and to develop new and different models that can be shared throughout AAU and ARL. The group began this task by inviting representatives of research institutions that are rewriting intellectual property ownership policies to meet with them on February 17th. Some of the overarching themes from that discussion were:

- Sense of isolation in preparing policies for whole campuses or systems. Faculty may not like the outcomes, but the committee process may not make it easy for many to participate in the creation of the new policies.
- Sense of volatility. Faculty care immensely and will not respond well to any sense that any rights to publish as they choose could be affected.
- Sense of complexity. Many diverse interests and concerns have to be met in producing IP ownership policies. In consequence, such policies can become very complicated and fail to meet one of their purposes: education and information for the campus.
- Finances may be implicated. Some copyrights produce revenue. To whom should the revenue belong? Often, a criterion for shared ownership of copyright between faculty and universities is "significant use of university resources" in creating the work. How does one judge "how many" university resources were needed to bring the work to fruition? Policies drafted in the 1970's and 1980's say that software created in universities is shared property. Now that software and computers are much more ubiquitous, is this appropriate?
- Increasing importance of materials within the copyright period. More and more works are, or will be, or can be available in electronic form. More and more works are extant within the copyright period. The university representatives agreed that a great deal of support is needed on campus for interpreting and using copyrighted works, beyond current written policies.
- Education about copyright was mentioned repeatedly, and that theme generated a tentative Task Force outcome: creation of a multi-media or hyperlinked resource for AAU/ARL campuses.
- Working on a license can take a lot of time. What can be done to facilitate the information license-negotiating process on university campuses?
- In none of the policies under review by discussants, was mention made of the important relationship between the assignment of copyrights by faculty *and* the terms and conditions under which university libraries subsequently purchase or license that information later.

Another charge to the Task Force is to explore the feasibility of universities conducting more of their publishing programs, with a particular emphasis on early or informal publishing.

A third task assigned to the Task Force is to advise the President and officers of the AAU on copyright issues as they affect other AAU programs. This charge arises from the increased activity on the national level, particularly the draft report of the Clinton Administration's Working Group on Intellectual Property in the National Information Infrastructure ("Green Paper" of July 1994) and the final report and legislative agenda that are expected in 1995. For example, in the fall of 1994, the Working Group convened a continuing "Conference on Fair Use" to which Laura Gasaway, University of North Carolina-Chapel Hill, IP-TF member in both the initial and follow-up phases, is the AAU delegate.

A last and general assignment is to continue exploring new IP property arrangements that can exploit the potential of the electronic environment to enhance scholarly communication and advance teaching and research.

Initial Task Force Plans

On the subject of educating campuses and campus officers about current developments in copyright issues vital to university interests, the IP-TF began:

- Drafting a brief report for AAU/ARL institutional presidents (as well as provosts and others) outlining such developments in national legislation, highlighting key issues, explaining why they are important, and urging campuses to act appropriately (e.g., inform legislators). The report will be prepared after the Working Group on Intellectual Property in NII releases its final report, expected shortly.

- Creating an introduction/education tool for key leaders in higher education, initially a three-page overview of current copyright concerns for a wider (beyond AAU/ARL) academic audience and will identify the appropriate distribution venue.
- Probing more deeply the matter of university relationships with their university presses as well as with scholarly and scientific societies by designing a conceptual framework that will be developed over 1995 in collaboration with the AAUP, with initial work by the two university press members of the Task Force.
- Starting an electronic discussion list for campus copyright committee members. The list will be private/closed, with membership by recommendation.
- Discussing additional project ideas including creation of an electronic educational copyright tool for campus faculty, students, staff, etc. with FAQs and support documents in areas such as: what it means to own and transfer copyrights; model policies for copyright transfers; models for electronic license; copying rights within the law. A study of numbers, types, and transfers of campus copyrights was proposed as a topic for the next Task Force meeting.

– Ann Okerson

AAU/ARL Intellectual Property Task Force Membership

Peter Nathan, Provost, University of Iowa, Chair
Scott Bennett, University Librarian, Yale University
Colin Day, Director, University of Michigan Press
Laura Gasaway, Director of the Law Library and Professor of Law, University of North Carolina at Chapel Hill
Jane Ginsburg, Professor of Law, Columbia University
Kent Hendrickson, Dean of Libraries, University of Nebraska
James O'Donnell, Professor of Classics, University of Pennsylvania
Bernard Rous, Director of Electronic Publishing, Association for Computing Machinery (ACM)
Pamela Samuelson, Professor of Law, University of Pittsburgh
Robert Shirrell, Journals Manager, University of Chicago Press
Dieter Soll, Professor of Molecular Biophysics and Biochemistry, Yale University
Hal Varian, Professor of Economics, University of Michigan
Ann Okerson, Director, Office of Scientific and Academic Publishing, ARL
John Vaughn, Executive Officer, AAU
Duane Webster, Executive Director, ARL
Lynn Brindley, London School of Economics, ex-officio*
Charles Oppeneim, Strathclyde University, ex-officio*
(* representing the UK Higher Education Funding Councils)

Online Scholarship Initiative at the UVa

The University of Virginia Library's Electronic Text Center now offers a new service to UVa faculty (limited initially to a selection of humanities and social science departments). The Online Scholarship Initiative enables UVa faculty to make available on the Internet pre-print copies of articles to be published, and post-print copies of articles already published.

The Initiative is both a new service at UVa and a national pilot project, growing from the discussions sponsored by the Association of American Universities and ARL. Some hope that the Online Scholarship Initiative will serve as a model for other universities and colleges, with the eventual aim of creating an online, searchable, national archive of faculty scholarship.

Among the many benefits made possible through this new service are:

- rapid access to scholarship because a copy of an article can be made available electronically long before it is available in print;
- more convenient access to scholarship because the means both to find and read an appropriate article are contained within a single electronic service;
- an eventual electronic archive of published articles made possible through partnerships with established academic publishers;
- the ability to include material in an electronic version that cannot be included in a print journal (including multiple color illustrations, sound, and "hypertext" connections to other articles or resources on the Internet); and
- increased visibility for scholarly output written at UVa.

In practice, the Online Scholarship Initiative will:

- create, maintain, and publicize an online searchable archive of UVa scholarship, with particular emphasis on availability through the World Wide Web;
- provide tools for converting word processing files to a suitable format for inclusion in the online archive;
- help clarify the different issues and publication possibilities that are associated with electronic publishing;
- work with publishers to secure electronic publication rights for electronic pre- and post-prints; and
- work with UVa-based scholarly journals to explore the options for publishing online versions of their material.

The Online Scolarship Initative can be reached at http://etext.lib.virginia.edu/osi/html. For more information contact Peter Byrnes at (804) 924-3169; David Seaman at (804) 924-3230; or e-mail: 9243169@virginia.edu.

– David Seaman, Coordinator, Electronic Text Center, Alderman Library, University of Virginia

COALITION FOR NETWORKED INFORMATION

Paul Evan Peters, Executive Director

DIGITAL LIBRARY RESEARCH AND DEVELOPMENT

The Coalition for Networked Information Spring 1995 Task Force Meeting was held in Washington, D.C. on April 10–11. The theme of the meeting was "Digital Library Research and Development." Paul Evan Peters, Coalition Executive Director, opened the meeting with some comments on the "digital library," a phrase that has replaced "virtual library" as the term of choice for the ultimate result of the transition of scientific and scholarly communication and publication from a system geared primarily to producing, distributing, and using information in print and other analog formats to a system geared to network and other digital formats.

Peters commented that the meeting had been organized for attendees to explore a number of questions related to digital libraries: What will digital information objects and their libraries look like? What will these libraries contain and how will things get into them? How will clients find things in them? How will they interoperate, assuming they will? Who will be responsible for building them, and how will they be funded, managed, and governed? What will be their scope: individual, departmental, institutional, region, national, global...or supernatural?

The opening session featured representatives from the three federal agencies that are sponsoring a four-year, $24.4 million joint initiative on digital libraries. The project's focus is to dramatically advance the means to collect, store, and organize information in digital forms, and make it available for searching, retrieval, and processing via communication networks, all in user-friendly ways. (See table.)

Stephen Griffin, Program Manager, National Science Foundation, provided an overview of the projects, which are a mix of experimental testbeds and prototypes. Program goals are to:

- Advance fundamental research over a large set of interdisciplinary topics;
- Develop and demonstrate new digital library technologies through experimental testbeds and prototyping;
- Build new applications and services; and
- Establish community presence and influence by becoming the "premier" effort in digital libraries and through broad participation by a diverse set of client groups.

Griffin also identified five research areas that NSF feels are fundamental to the development of digital libraries:

- Capturing data of all forms (text, images, video, etc.) and information about that data (metadata);
- Categorizing, organizing, and combining large volumes of information in a variety of forms and formats;
- Developing software and algorithms for data exploration and manipulation and combining large volumes of various types of information;
- Developing tools, protocols, and procedures for advancing the utilization of networked knowledge bases distributed around the nation and around the world; and,
- Studying the impact of these technologies on individuals, organizations, sectors, and society at large.

Nand Lal, Manager of Digital Library Technology Project, Goddard Space Flight Center, noted that NASA has an interest in digital libraries technologies as a developer of content and as a consumer of information. Satellites will be sending down 1/4 terabyte of information per day in the near future. This makes NASA interested in new technologies that will enable them to manage this data better. NASA's involvement in digital library research and development will benefit the agency in performing its engineering and science mission, and in its public access and outreach functions. NASA also feels that substantial advances in technology will be necessary to make the National Information Infrastructure (NII) a reality. Lal stated that a digital library includes the functionality of a traditional library, but is more than simply a digitized version of the same. It is a collection of information resources and services (accessible via the NII) that allows a subscriber easy and timely acess to useful information and knowledge at a reasonable cost.

Lal concluded with what he sees as the management challenges of digital library development: the adoption of, and adherence to, appropriate standards; the establishment of metrics for user satisfaction; the demonstration of scalability; and, performance. He stated that in a totally distributed environment with a large spectrum of users consulting a large spectrum of information content, these will be great challenges.

Glenn Ricart, Program Manager, Advanced Research Projects Agency (ARPA), currently on leave from the University of Maryland, College Park described ARPA's working hand-in-hand with NSF and NASA on digital library initiatives as an outgrowth of the NREN legislation. ARPA's view is that in addition to having information technology and applications, we need an information technology enterprise for the emerging economy. The National Information Enterprise (NIE) is the ARPA program focus that combines ubiquitous networking with services that link to applications, particularly in national priority areas. ARPA's major emphases for digital library research and development are in service areas, e.g., authenticating and synchronizing large caches of information. They are interested in specific projects that deal with the tough questions of copyright and electronic commerce.

Ricart identified a number of key issues that need to be addressed in the development of digital libraries: technologies for locating documents; developing shared, distributed, long-lived repositories; strategies for document

NSF-ARPA-NASA Digital Libraries Initiative

Cooperation and ongoing interaction among the participants of the NSF-ARPA-NASA Digital Libraries Initiative Projects is intended to have the following six , four-year projects function within a single programmatic framework.

Principle Institution (amount)	Partners	Project Focus (Internet sites)
Carnegie Mellon University ($4.8 million)	Microsoft, DEC, Bell Atlantic, QED Communications, Open University, Fairfax VA County Schools	Digital video with focus on math and science (http://fuzine.mt.cs.cmu.edu/im/im-proposal.html)
University of California, Berkeley ($4 million)	Xerox, Resources Agency of California, California State Library, Sonoma County Library, San Diego Association of Governments, The Plumas Corp., Shasta County Office of Education, Hewlett Packard	Environmental information (http://http.cs.berkeley.edu/~wilensky/proj-html.html)
University of California, Santa Barbara ($4 million)	State University of New York-Buffalo, University of Maine, industrial partners	Geographical information, including images and maps (http://alexandria.sdc.ucsb.edu)
University of Illinois ($4 million)	National Center for Supercomputing Applications, University of Arizona, IEEE, APS, John Wiley & Sons, U.S. News and World Report	Engineering and science journals (http://www.grainger.uiuc.edu/dli)
University of Michigan ($4 million)	IBM, Elsevier Science, Apple Computer, Bellcore, UMI International, McGraw-Hill, Encyclopedia Britannica, Kodak	Multimedia with focus on earth and space science (http://www.sils.umich.edu/UMDL/HomePage.html)
Stanford University ($3.6 million)	Association for Computing Machinery, Bellcore, Dialog, EIT, Hewlett Packard, ITC, Interval Research, O'Reilly and Associates, WAIS Inc., NASA Ames, Xerox PARC	Technologies for a single, integrated virtual library (http://www-diglib.stanford.edu)

translation and interchange; scalable registration/recordation; and rights management systems.

William Arms, Corporation for National Research Initiatives (CNRI), followed up on the agency officials' presentations by providing an overview of digital library technical issues and terminology as an outgrowth of work being conducted by CNRI through the Computer Science Technical Reports Project and the Digital Library Forum. He identified eight key points that need to be considered as digital libraries develop:

- The technical framework exists in a legal framework (digital library architectures must take into account such issues as intellectual property, obscenity, communications law);
- Architecture needs to separate aspects that depend upon content (e.g., identifiers and security are characteristics that are independent of content; text and computer programs are dependent on content);
- Names and identifiers are basic to the digital library (and should include a location independent name, globally unique, persistent across time);
- Digital library objects are more than collections of bits (they have attachments to the content (bits) such as properties, transaction log, and signature);
- Repositories must look after the information they hold (by supplying handles, transaction records, and security);
- The digital library object that is used is different from the stored object (users receive the result of executing a program such as SGML or the result of an interaction with a database);
- Users want intellectual works, not digital objects (e.g., a "report" refers to groups of objects in a digital library); and
- Understanding of digital library concepts is hampered by terminology (terms such as "document" have such strong social, professional, legal, or technical connotations that they obstruct discussion in this environment).

Other plenary sessions included a panel on networked information discovery and retrieval and a talk by science fiction author Daniel Keys Moran. Thirty Project Briefings showcased digital library programs and a wide variety of networked information projects and issues.

Many documents from the Spring 1995 Task Force Meeting and the full meeting report are available on the Coalition's Internet server. To access the Coalition's homepage, the URL is: http://www.cni.org/CNI.homepage.html. Via gopher, point your gopher client to gopher.cni.org 70. To access the CNI ftp archive, browse the directory /CNI/tf.meetings at ftp.cni.org.
–Joan Lippincott, Assistant Executive Director

FEDERAL RELATIONS

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

COMMUNICATIONS DECENCY ACT MOVES FORWARD

The Communications Decency Act of 1995, S. 314, introduced by Senators Jim Exon (D-NB) and Slade Gorton (R-WA), passed the first legislative hurdle on March 23. The Senate Committee on Commerce, Science, and Transportation incorporated S. 314 as an amendment to the Telecommunications Competition and Deregulation Act of 1995. The amendment seeks to extend current laws to the Internet and other interactive media that make it illegal to use a telephone to communicate obscene, lewd, indecent, abusive or harassing comments or messages. (See *ARL* 179, p. 14.) In a recent meeting, Sen. Exon made clear his intent in introducing this bill was to protect minors from access to controversial and sexually explicit material via the Internet or other interactive media (e.g., commercial online services, bulletin boards, and the like). To that end, the Senator has stated, "I want to keep the information superhighway from resembling a red-light district."

Although the amendment includes some much needed changes, it remains seriously flawed, especially with regard to First Amendment issues. The amendment as reported out of Committee includes exemptions to limit the criminal liability of commercial online service providers. Discussions within the public and private sectors conclude that these exemptions would apply to educational institutions and libraries.

Despite these new exemptions, language remains that erodes First Amendment and privacy rights. Furthermore, the amendment distinguishes between the print medium and the networked environment. What is currently permissible in the print environment would not be extended to the NII. As noted by Sen. Patrick Leahy (D-VT), "Many of us are, thus, justifiably concerned about the accessibility of obscene and indecent materials online and the ability of parents to monitor and control the materials to which their children are exposed. But government regulation of the content of all computer communications, even private communications, in violation of the First Amendment is not the answer. This amendment would chill free speech under the First Amendment and the free flow of information over the Internet and computer networks, and undo important privacy protections for computer communications."

In a related measure, Sen. Leahy introduced S. 714, the Child Protection, User Empowerment, and Free Expression in Interactive Media Study Bill. The legislation would require the Departments of Justice and Commerce to conduct a study of how to limit children's access to "violent, sexually-explicit, harassing, offensive, or otherwise unwanted material" consistent with the First Amendment and the free exchange of ideas.

ARL with others in the education, information industry, and communications industries wrote to members of the Senate in support of Leahy's legislation (S. 714) and to express concerns about the impact of the proposed Communications Decency Act on the future of interactive media and First Amendment values.

A companion House bill (also entitled the Communications Decency Act of 1995, H.R. 1004) was introduced by Rep. Tim Johnson (D-SD) in February.

TELECOM REFORM BILLS MARKED UP

The Senate and House are trying yet again to tackle the extremely contentious and difficult task of updating the U.S. communications laws. The Senate Commerce, Science, and Transportation Committee reported out S. 652, the Telecommunications Competition and Deregulation Act of 1995. The House Commerce Committee marked up H.R. 1555, the Communications Act of 1995. Although legislation unanimously passed the House last session, it failed to pass the Senate in the final days of the 103rd Congress.

As with the previous legislation, S. 652 and H.R. 1555 seek to address the increasing convergence or blurring of lines in the provision of services between cable, telephone, broadcasters, and other service providers. Although there are differences in approaches, both bills include provisions that would permit these service providers to enter each other's businesses and eliminate or significantly reduce regulations prohibiting such entry.

S. 652 contains provisions (Snowe amendment) to "ensure that health care providers for rural areas, elementary and secondary schools, and libraries are able effectively [to] utilize modern telecommunications services in the provision of medical and educational services to all parts of the Nation." It requires that telecommunications carriers provide those services, included in the definition of universal service, to elementary and secondary schools and libraries at rates that are affordable and not higher than the incremental cost to the carrier of such service. Higher education institutions are not included in these provisions. After two days of debate, on May 25, the House Commerce Committee passed H.R. 1555 with ten amendments. Amendments similar to those in S. 652 relating to libraries were not included in the bill. A related measure, H.R. 1528, the Antitrust Consent Decree Reform Act of 1995, was approved on May 18 by the House Judiciary Committee. This bill calls for a significant role for the Department of Justice in determining whether RBOCs may enter long distance and manufacturing markets.

UPDATES

Government Information

The Paperwork Reduction Act (PRA) of 1995 H.R. 830, introduced on February 6, passed the House on February 22. S. 244 , the Senate companion bill, passed the Senate on March 6. A conference committee resolved minor differences between the two bills and it was signed by the President on May 22. Previous attempts to reauthorize the PRA have been unsuccessful because of major disagreements regarding paperwork burdens and information dissemination issues. These issues were resolved in H.R. 830 and S. 244.

The PRA sets federal policy with regard to government information collection and maintenance, as well as government statistical and information dissemination programs. Both bills recodify Title 44 of the *United States Code*, chapter 35, to minimize the paperwork burdens on the public. Key provisions:

- requires agencies to provide public notice before taking any action to initiate, significantly modify or terminate a public information product or service;
- restricts fees or royalties for reuse, resale, or redissemination of government information;
- limits user fees payable to the agency to the cost of dissemination; and
- requires OMB to establish a Government Information Locator Service (GILS) to identify and in some cases provide access to electronic agency products and services.

Intellectual Property

H.R. 989 was introduced on February 16 to extend the term of ownership of a copyrighted work from the life of the author plus 50 years to the life of the author plus 70 years. This measure would provide U.S. copyright holders with the same length of protection given to copyright holders in the European Union. A Senate companion bill, S. 483, was introduced on March 2. The Subcommittee on Courts and Intellectual Property will conduct a hearing on this bill on June 1 in Pasadena, CA.

H.R. 533, introduced on January 17, amends current law with respect to the issue of fair use of computer software and similar information systems. The bill proposes to change the word "owner" of copyright in a work to "rightful possessor." Under this bill, a lawful possessor is allowed to have another copy made of computer software under certain circumstances, e.g., back-up copies.

H.R. 789, introduced on February 1, amends the law with respect to the licensing of music. It defines the "fair use" of musical work by the reception of a broadcast, cable, satellite, or other transmission. It proposes binding arbitration services for rate disputes involving Performing Rights Societies, and defines the types of actions that should be referred to arbitration. The bill provides specific requirements regarding how to obtain online computer access to musical repertoire and where to obtain access to musical licensing information.

H.R. 935, introduced on February 14, seeks to amend the law to permit commercial establishments to purchase sports programming (including satellite programming) for their patrons at fair and reasonable fees. The measure authorizes the Copyright Royalty Tribunal to establish fees that are equitable for small business owners and copyright holders affiliated with the sports teams.

S. 277, introduced on January 13, provides that the copyright owners of sound recordings have the right to benefit from the digital transmissions made of their music. This measure requires that the Librarian of Congress publish notice in the *Federal Register* of negotiations initiated to reach agreements on royalty payments and convene a copyright arbitration panel whenever such license agreements are not achieved voluntarily. Hearings were conducted on March 9.

NEA/NEH

On May 3, Rep. Goodling, (R-PA) introduced H.R. 1557, a bill that would reauthorize the National Endowment for the Arts (NEA), the National Endowment for the Humanities (NEH), and the Institute for Museum Services (IMS). The bill would reauthorize these agencies through FY 1998. In FY 1998, the original authorizing act, the National Foundation on the Arts and Humanities Act of 1965, would be repealed. H.R. 1557 calls for diminishing federal support for NEA and NEH and a reauthorization of the IMS in 1988 at its current operating level. The Economic and Educational Opportunities Committee marked up H.R. 1557 on May 10. On May 25, Sen. Jeffords (R-VT) introduced S. 856, a bill to reauthorize the NEA and NEH. The bill calls for reauthorization of the agencies at declining authorization levels over five years.

Pat Williams (D-MT) introduced H.R. 1520, a bill to amend the National Foundation on the Arts and the Humanities Act of 1965. The bill would rename the 1965 Act as the Arts, Humanities, and Museums Act of 1995. The bill would extend the authorization of the NEA, NEH, and includes provisions relating to the IMS. It would also establish the American Cultural Trust to support these agencies.

Information current as of May 25. — PSA

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Office of Management Services

Susan Jurow, Director

Seven Components of a Successful Library-wide Diversity Program

by Kriza Jennings, Program Officer for Diversity and Minority Recruitment

The goal of a library-wide diversity program is to develop a climate where all library personnel and library users feel welcomed, valued, and respected. Based on the site visits and consultations made to ARL libraries over the past five years, seven components of a successful library-wide diversity program were identified. The following report describes each component and the OMS/ARL seminars that are available to assist libraries to develop, foster, and support library-wide diversity programs.

Definition of Diversity

The ARL/OMS programs for diversity, and minority recruitment and retention, define diversity as those human qualities or characteristics that make people different, unique, the same, and similar. These distinctions are not limited to racial or ethnic diversity.

1) Administrative Agenda and Leadership

It is imperative that a high degree of commitment and support for program development be provided by the upper administrative levels of the library. For a diversity program to be successful, the administration must be prepared to commit resources as well as to articulate clearly the importance of the program to the library. An OMS seminar, "Developing a Library Diversity Program: The Agenda and Role of Administration," reviews these critical aspects of implementing library-wide diversity programs. The seminar "Advancing Diversity with Committees, Staff Positions, and Strategic Plans" explores the three most commonly implemented strategies for ensuring that a library-wide diversity program is successfully put into practice, supported, and monitored.

2) Management and Supervision

One of the most important keys to a successful diversity program is the active commitment of all supervisors and managers, and the direct implementation of diversity activities within each department. This requires open and extensive discussions about supervisory styles that provide an environment for all library personnel to develop and perform at their best. This focus includes heightening the awareness of supervisors to the human differences within the workforce and ensuring that a value is placed upon the various qualities and contributions each staff person can offer. It is our experience that a mini-seminar for supervisors, held on-site, successfully opens up dialogue for focusing on this component. In addition, the seminar "Involving Staff in the Development of a Library-wide Diversity Program: Programs, Services, Collections, Committees, Staff Development and Planning" is designed to enable the manager to focus on his/her own perceptions about diversity among personnel and to learn ways to tap into these talents and skills.

3) Relationships with Co-Workers

The area where diversity impacts almost every employee in the library is in their personal and professional relationships with co-workers. Although it is often common practice to ignore or avoid diversity issues relating to work relationships, this is, in fact, the area where most staff are anxious to have more attention placed. Diversity issues that are not discussed can become barriers to fostering communication and decision making in the organization. The goal is to provide a framework for each employee to become more aware of and assess his/her own biases and prejudices, and for discussions about the need for work groups to possess a broad variety of skills and talents. "Fostering a Climate in the Workplace for Diversity" is a seminar designed to assist managers, supervisors, and human resource officers in fostering better work relationships among personnel. On-site presentations also are helpful in providing library personnel with a framework for beginning discussions on this issue.

4) Recruiting a Diverse Workforce

Most ARL libraries actively seek to add diversity to their workforce, especially racial diversity. In 1994, the ARL membership established a part-time capability to support local minority recruitment and retention efforts. A committee of ARL directors works with the Program Officer on Diversity and Minority Recruitment and Retention on ways to implement strategies nationally and regionally. At the local level, consultations tend to focus on hiring practices, search procedures, and, most importantly, the need for ARL personnel to network more widely beyond the ARL library community. ARL offers three seminars that provide guidance for implementing these programs: "Implementing Minority Recruitment Strategies," "Implementing Minority Retention Strategies," and "Search Committees and Minority Recruitment." Informal discussions with library personnel also provide opportunities for the examination of assumptions and beliefs.

5) Interactions with Library Users

In a diversity program, library personnel are encouraged to explore their own personal biases, prejudices, assumptions, and attitudes about others, including

library users. It is important for all levels of staff to be aware of their role in promoting a welcoming environment in the library for every person who seeks access to the library's services. ARL/OMS mini-seminars and presentations are available to provide on-site assistance to student workers, support staff, and librarians in assessing their interactions with library users and to identify where they need improvement or development. Although these discussions often begin at a library-wide level, they are usually most effective when the dialogue reaches the unit level.

6) Library Services and Programs

Within the exploration of the relationship between diversity and library services or programs is a close examination of the library's philosophy of service and an assessment of how that philosophy is practiced throughout the library and across all levels of staff. It is important to identify both current clients and library users, and future or potential users from the campus and/or community. The seminar "Assessment and Design of Library Services for a Diverse User Population" is designed to offer direction and share ideas on how to explore and develop this concept in the library. While ARL libraries have a solid set of services and programs, it has been found that discussion of these issues with personnel who staff service desks often leads to ideas for enhancing services. These enhancements are usually no more than a reexamination of perspectives and attitudes about the role of a library that is committed to advancing diversity in a research environment.

7) Development of Collections

ARL libraries often assume that the collections are the area where they are most successful in responding to diversity because of the range of subjects within a library. However, when responding to and exploring collections as a diversity issue, it has been found that collections may not provide the broadest exploration of issues available due to the personal biases and focuses of selectors and/or university faculty. This issue is best addressed through on-site consultations with collection development officers as each library's approach for addressing this issue is different depending on the culture of the university and the library. There are several interesting collection development models being developed in ARL libraries through the OMS Diversity Partnership's Program; these will be available to all ARL members later this year through the diversity resource kits shared with each member institution several times per year.

For more information about ARL/OMS diversity and minority recruitment programs, contact Kriza Jennings at the ARL offices or email kriza@cni.org.

Learning About Learning Organizations

Transforming Culture: Creating a Learning Organization, a one-day introduction to the use of the learning organization model as a framework for changing the organizational culture of an academic library, was offered on March 28 as a preconference to the 1995 ACRL National Conference in Pittsburgh. The program, attended by 25 participants from a variety of academic and research libraries, included an introduction to basic theory and concepts of the learning organization; an exploration of the five disciplines that form the core of this theory (shared visioning, team learning, personal mastery, mental models, and systems thinking); a discussion of exemplary leadership practices; and identification of key steps necessary to build a learning organization. As part of the day's learning, participants completed not only an individual leadership style inventory to assess individual leadership actions and behaviors, but also an instrument to assess organizational culture and isolate major issues to be addressed in evolving their organization as a learning organization.

Maureen Sullivan, OMS Organizational Development Consultant, and Shelley Phipps, Assistant Dean for Team Facilitation at the University of Arizona and an OMS Adjunct Faculty member, designed and presented this program. This one-day program and a two-day version are available to ARL member libraries. For more information or to schedule an offering at your library, contact Maureen Sullivan at the OMS office (202) 296-8656 or e-mail maureen@cni.org.

SPEC Examines Collection Development

OMS announces the availability of SPEC Kit #207, *Organization of Collection Development* by Gordon Rowley, Assistant Director for Collections, Iowa State University. This Kit describes the organizational models for collection development currently found in ARL libraries. It also includes information on changes that have occurred since 1987, especially as a result of the use of electronic records and automated library management systems in collection development work, as well as from the increasing distribution of electronic information resources and their inclusion in libraries' collections.

Contact the ARL Publications Department at (202) 296-2296 or email arlhq@cni.org for more information on this and other OMS products.

ARL Activities

G. Jaia Barrett, Deputy Executive Director

Librarians' Salaries for 1994-1995 Reported

The *ARL Annual Salary Survey 1994* represents the 25th year that salary data were collected for ARL member libraries, and the 16th edition compiled and analyzed by Gordon Fretwell, University of Massachusetts and consultant to ARL.

In his introduction to this year's edition, Fretwell notes "the purchasing power of nonuniversity staff at the median is slightly reduced (3/4 of 1%) from what it was ten years prior, while the typical beginning professional salary has gained 18.1% in purchasing power during the same decade. This trend inevitably results in salary compression problems that adversely impact the mid-career and senior staff. University library salaries have generally made more progress than salaries in the nonuniversity libraries. The current purchasing power of staff at the median has increased 10.2%."

ARL University Librarians*

	Combined	Men	Women
Average salary	$43,966	$46,189	$42,659
Average years of experience	16.0	16.5	15.7
Total number of filled positions	6,920	2,562	4,358
Minority librarians' average salary	$41,997	$44,485	$41,008
Total number of minority librarians	724	206	518
Average director salary	$104,832	$106,118	$102,689
Total number of directors	104	65	39

*does not include law or medical librarians
Source: *ARL Annual Salary Survey 1994*

The median salary in ARL nonuniversity libraries is $48,000; in university libraries, it is $41,000. Figures for 1994-95 average salaries and years of experience in university libraries are reported in the accompanying table.

Minority librarians in 95 U.S. university libraries (including law and medical) now number 841, an increase from 830 in 1993-94, and account for 11.3% of ARL's U.S. library professionals. Minority staff are disproportionately distributed across the country, with minority librarians underrepresented in the New England, West North Central, East South Central, West South Central, and Mountain regions and overrepresented in the Middle Atlantic, East North Central, South Atlantic, and Pacific regions. The salary differential separating average minority salaries from the average salaries of their Caucasian counterparts is $1,969, or about 4.5% lower for minority staff. This change is an improvement of almost a percent point compared to last year's 5.6% difference.

The salary differential between women and men librarians is smaller at the director's level for all three types of libraries (main, medical, and law). The difference in the salaries between men and women library directors is 3.3%. The difference for all professional positions is 8.3%.

The *ARL Annual Salary Survey* is available from ARL Publications for $25.00 for member libraries and $65.00 for nonmembers (plus $5.00 shipping and handling per publication).
– *Martha Kyrillidou*

Texaco, Publishers Agree to Settle Copyright Case

Texaco and a steering committee representing a group of 83 publishers announced on May 15 that they have agreed upon terms to settle a long-standing copyright case. The case, *American Geophysical Union et al v. Texaco Inc.*, was initially brought by 6 U.S. and European publishers in 1985 on behalf of a class of publishers of scientific and technical journals that are registered with the Copyright Clearance Center. The Federal District Court in New York ruled in 1992 that photocopying of individual journal articles by or for employees of for-profit companies such as Texaco in the course of their work is not "fair use." The U.S. Court of Appeals for the Second Circuit in 1994 upheld the lower court decision. In April, Texaco petitioned the U.S. Supreme Court to review the case.

Over the past several years, ARL and 14 other academic and library organizations have joined together to submit *amicus*, or friend of the court, briefs in this case to elucidate and reaffirm the fair use rights that the Copyright law prescribes for scholars and researchers in the pursuit of research and education. ARL's interest in this case reflects the association's long-standing position as an advocate of the public interest in copyright, and in maintaining a balance between the rights of the copyright owner and the rights of the user.

Texaco, which conceded no wrongdoing in the proposed settlement, will pay a seven figure settlement and retroactive licensing fee to the CCC. In addition, Texaco will enter into standard annual license agreements with the CCC during the next five years. The settlement is subject to the approval of the entire group of publishers and the court.

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TRANSITIONS

Auburn: William Highfill announced his resignation as Dean of Libraries; Bobby Holloway, Assistant Dean for Circulation and Technical Services, will serve as Interim Dean.

Colorado State: Joan Chambers announced her plan to retire as Director of Libraries effective January 1, 1996.

Johns Hopkins: James Neal was appointed Director of the Eisenhower Library, effective September 1.

McGill: Eric Ormsby will take a six month sabbatical beginning July 1; Fran Groen, Associate Director, will serve as Acting Director in his absence.

Nebraska: Effective July 1, Kent Hendrickson will be Associate Vice Chancellor for Information Services and Dean of Libraries.

New York Public: Paul Fasana announced his retirement effective March 31; William Walker, who also manages the implementation of NYPL's SIBL (Science, Industry, and Business Library) was named Acting Director of Research Libraries, effective April 1.

Princeton: Donald Koepp is Director Emeritus effective April 10; Nancy Klath, Deputy Director at Firestone for the past five years, is Acting University Librarian.

Utah: Sara Michalak was appointed Director of Libraries effective July 1. She was formerly Assistant Director of Libraries for Library Development and Planning at the University of Washington.

***

ARL: Kathryn Deiss was appointed OMS Training Officer, effective May 1. Ms. Deiss was formerly ILL Librarian at Northwestern University.

Michael Matthews joined the ARL staff in March as Communications Specialist. He was previously a consultant to the Embassy of Ethiopia serving as Director of Communications.

Ann Okerson, Director of ARL's Office of Scientific and Academic Publishing since February 1990, will leave ARL in September to serve as Yale University's Associate University Librarian for Collection Development and Management. For fall 1995 she also holds a part-time faculty appointment at the University of Michigan to teach copyright in the Graduate School of Information and Library Studies.

American Library Association, Office for Information Technology Policy: J. Andrew Magpantay, was named Director of ALA's newly established OITP, effective June 15. He was special assistant for innovative projects and planning at the Library and Center for Knowledge Management, University of California, San Francisco.

Canadian Association of Research Libraries: Carolynne Presser, Director of Libraries at the University of Manitoba, will become President of CARL for a two year term beginning in June. David McCallum, Executive Director, announced his plan to take a one year professional leave; Tim Mark has accepted the position of Interim Executive Director for a one year period beginning in September 1995. Mr. Mark is currently Head Librarian of the South Branch, Ottawa Public Library.

OCLC: Dorothy Gregor, formerly University Librarian at the University of California, Berkeley, was named Assistant to the President for Academic and Research Library Relations at OCLC. OCLC has also supported ARL to retain Ms. Gregor as a consultant for the AAU-ARL Japan STI Project.

HONORS

UC-Davis: The General Library, University of California, Davis was honored with an Affirmative Action and Diversity Achievement Award by the campus administration. The Library was cited for its efforts to sponsor comprehensive programs which promote cultural insights and sensitivities. The Library has conducted workshops on discrimination and stereotypes, the prevention of sexual harassment in the workplace, dealing with hate crimes, panel discussions on gay, lesbian, and bisexual issues, and general sessions on the significance of affirmative action and diversity. Whereas the awards are given annually to individuals, the Library is the first unit to be so honored.

Prudence S. Adler, ARL's Assistant Executive Director for Federal Relations and Information Policy, was honored as one of the 1995 "Federal 100," an award sponsored by *Federal Computer Week*. The program identifies the 100 individuals who "make a difference in federal computing." In presenting the award, *FCW* cited her as instrumental in the agreement to provide public access to the Government Information Locator System, and her contributions to a coalition promoting Internet access to libraries and research institutions.

GRANTS

The Andrew W. Mellon Foundation has recently awarded the following grants.

Columbia University Libraries was awarded a grant of $700,000 for use over three years to evaluate the potential for electronic books to supplement or replace traditional printed works in research libraries. The goal of the study is to assess the economic impact on libraries and publishers and the usefulness to students and scholars in providing access from workstations to reference works now available only in print form.

MIT Press was awarded a grant of $150,000 for use over three years to develop a new electronic peer-reviewed journal, *Chicago Journal of Theoretical Computer Science*. The goal is to establish an economic model for future subscription-based electronic journals.

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Calendar 1995

June 22-29	American Library Association Chicago, IL
July 24-25	**ARL Board Meeting** Washington, DC
August 22-26	IFLA Annual Conference Istanbul, Turkey
September 18-19	ARL-SUNY-CLR-CNI-NASULGC Economics of Information Washington, DC
October 17-20	**ARL Board and Membership Meeting** Washington, DC
October 30-31	Coalition for Networked Information Fall Task Force Meeting Portland, OR
October 31-November 3	EDUCOM '95 Leading the Way: Technology and Beyond Portland, OR
November 28-December 1	CAUSE95 Realizing the Potential of Information Resources: Information, Technology, and Services New Orleans, LA

ARL 1996

ARL Board Meeting
February 5-6, 1996
Washington, DC

ARL Board and Membership Meeting
May 14-17, 1996
Vancouver, Canada

ARL Board Meeting
July 29-30, 1996
Washington, DC

ARL Board and Membership Meeting
October 15-18, 1996
Washington, DC

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Current Issues

ARL Promotes Copyright Awareness

ARL has launched an initiative to promote copyright awareness within North American higher education and research communities. Joining ARL in the initial step of this initiative is the American Council of Learned Societies (ACLS), an organization of 53 scholarly societies. In an open letter, the leadership of ARL and ACLS call on colleagues throughout the scholarly community to come together to revisit the goals and purposes of copyright and "contribute to efforts that seek an understanding of copyright in an electronic environment." The letter follows.

Association of Research Libraries
American Council of Learned Societies

August 3, 1995

Dear Colleagues:

This letter is to call to your attention a growing number of developments that could significantly affect copyright law. As copyright is a key public policy that sparks the creation and sharing of knowledge, we believe it is important for more members of the scholarly community to be aware of these developments and engaged in shaping the outcomes.

Giving urgency to our request is the promise of legislative reform in the United States to reassure the recently merged "info-tainment industry" that their intellectual property is protected when it is made available over a network. In the rush to identify ways to make these reassurances, there is the potential that educational and scholarly interests will be jeopardized. We call on you to contribute to explorations about how the letter and spirit of the copyright law, that has served all stakeholders well in the print environment, can translate into applications in an electronic, networked environment.

Pressure to pursue clarification of copyright compliance also comes from within the educational and non-profit communities. Experiences in the development of digital libraries and with innovative applications of technology for teaching and scholarly inquiry have surfaced an array of questions about what does and does not constitute compliance with the copyright law. The American Council of Learned Societies and the Association of Research Libraries are committed to pursue strategies that encourage thoughtful responses to these questions. A central element of our respective strategies is to raise the visibility of the issue within our communities and to encourage discussion of the purpose of copyright, as well as of policies and practices that support responsible compliance with the law.

The publication *Copyright, Public Policy, and the Scholarly Community* presents five perspectives about the viability of the copyright law in an electronic, networked environment. We recommend it as a sampler of the range of views that has emerged even within our own community. Published by ARL, the booklet contains papers from: a university librarian, a political scientist speaking on behalf of scholarly societies, a director of a large scholarly society with an active publishing program, and two lawyers each engaged in shaping workable policies and practices for managing university use of copyrighted works. The booklet is a resource modest in size but ambitious in intent: to illustrate the nature of discussions ongoing and to urge your participation in what may lead to public

policy decisions that redefine the very nature of scholarly communication.

Lawful uses of copyrighted materials in the electronic environment will be shaped by new guidelines, by legislation, by litigation, and by the tenacity of our institutions to influence alternatives to copyright such as licenses or other forms of contracts. We urge you to initiate or join discussions among colleagues within your institution, and within your professional or scholarly society, and to contribute to efforts that arrive at an understanding of copyright that will advance scholarly communication, higher education, and free inquiry in a networked environment.

Sincerely,

Duane E. Webster
Executive Director
Association of Research Libraries

Stanley N. Katz
President
American Council of Learned Societies

~ ~ ~

Resources for Copyright Discussion

* *Copyright, Public Policy, and the Scholarly Community* was prepared as a resource to stimulate discussions within educational institutions and scholarly societies. Edited by Michael Matthews and Patricia Brennan, it is available from ARL Publications Dept. (arlhq@cni.org). For orders in the U.S. and Canada, the book is $7.00 each when purchasing one to four copies, $5.00 each when purchasing five to nine copies, and $4.00 each when purchasing ten or more copies. International orders are $12.00 each.

ARL maintains a World Wide Web server (http://arl.cni.org/scomm/copyright/copyright.html) and gopher server (arl.cni.org) with a selection of copyright resources and links to other servers.

The Coalition for Networked Information sponsors a public listserve where matters of copyright are thoroughly aired. To subscribe to CNI-Copyright, send an email to listproc@cni.org leaving the subject line blank. Your message should read: subscribe cni-copyright <first name> <last name>

AUSTRALIAN COURSEPACK CASE: AN UPDATE

As reported in *ARL 178* (January 1995, p. 5), Australian research universities won the first round of a coursepack case against Australian publishers and their licensing agency, Copyright Agency Limited (CAL) last fall. Production of anthologies or coursepacks was permitted to resume provided they were made for use in a particular course and that universities could levy charges only to recovery costs.

CAL filed an appeal but lost on February 28, 1995. The full bench of the Federal Court upheld the earlier decision of Justice Gummow. Essentially, the ruling confirms that Australian universities can continue to produce anthologies or compilations of materials from different sources and sell them to students with the following two very important provisos:

- Copies must be made solely for the educational purposes of the institution.
- Anthologies or compilations must not be sold for profit. Universities must be able to show clearly that any charges are to cover costs of production only.

The judge rejected the publishers' argument that the activity of the university could be characterized as "a business of book selling or quasi publishing." He held that the university had not had the objective or purpose of making a profit and that it was legitimate to set a price designed to cover costs, including some indirect costs.

Universities in Australia are therefore advised to demonstrate that the university's purpose, in making and selling books of readings, is not to make a profit. It is suggested that the university issue clear instructions to staff on the calculation of the price to be charged to students for such books, and that appropriate accounting procedures relating to that calculation are included in its "Policy and Procedures" manual.

In this particular case, *Copyright Agency Limited v. Victoria University of Technology*, the on-campus bookshop was owned and operated by the university. In situations where the university does not operate or control its on-campus bookshop, it should allow books of readings to be sold at that bookshop only if the mark-up is for recovery costs of displaying and selling the material. If the university cannot control the price of that material in the bookshop then there will be a risk that the price will be calculated to include a profit element which will result in copyright infringement.

— *Information provided by Edward Lim, University Librarian, Monash University, Melbourne, Australia*

Challenges to Affirmative Action: Opportunities to Talk – and Listen

by Kriza Jennings, Program Officer for Diversity and Minority Recruitment

Discussions within government, business, and higher education confirm that the debate about affirmative action will be a major political focus for the next two years. As staff in ARL member libraries observe these dialogues, the ARL Program Officer for Diversity and Minority Recruitment receives requests for help in understanding the implications of the possible futures of affirmative action, and expressions of concern that diversity and minority recruitment efforts being implemented by the Association and in member institutions, may be in jeopardy. To respond to these inquiries, this article highlights three of the most frequently asked questions and the responses offered. The author encourages readers to share views and experiences on these matters with her. (202-296-2296; kriza@cni.org)

> Affirmative action is a proactive strategy affirming that an institution will actively and aggressively seek to overcome the effects of past discrimination against groups such as women and minorities by making positive and continuous efforts in their recruitment, employment, retention, and promotion.[1]

Q When affirmative action is discussed on our campus, in our community, and within our associations, the focus often turns to the legitimacy of minority recruitment and retention programs. How should we engage and respond to challenges?

A In your exchanges with others in the community or on the campus, try to learn as much about what they do support as what they do not support. This information may provide you with the framework for developing and proposing a renewed agenda for your environment that promotes the value of diversity.

For example, there is much national focus on the "personal responsibility" of an individual to improve his or her situation, compared to focusing only on the responsibility of a government or an organization to make the situation better for that individual. There may be a key here for reworking existing programs to articulate more clearly what the minority student, faculty, or staff member will bring to an organization rather than focusing solely on what the organization will do for the minority candidate.

As you examine programs designed to recruit and retain minorities from underrepresented groups in your own institution, determine first what the program is doing and why. If you identify exactly what the purpose of the program is, what it has done, its objectives, why the program is necessary, and how it will help the institution, then the stage is set for a discussion on the specific program strategy being implemented, as compared to a debate on the broader agenda of affirmative action.

Q We are experiencing some negative reactions and comments from library personnel in regard to our efforts to seek a diverse workforce. How can we best respond?

A Welcome the opportunity to describe and discuss these programs with your colleagues. It is important that the assumption not be made that anyone who questions affirmative action is racist, sexist, or prejudiced. There is a greater than ever need for open dialogue where all perspectives may be shared and heard.

There may be personal reasons for such a response. As financial resources and employment opportunities decline, some may view these programs or activities as a barrier to personal achievement. There are also those in the workplace who do not understand the genesis of these programs because they are too young to remember a time when higher education and employment were denied to many because of race or gender.

The national debate on affirmative action requires each individual to search his or her own personal beliefs to determine how they really feel about this agenda. Honest discussion requires an openness to hear what might be changed within the current configurations of law, policies, and practices at your institution, as well as to hear what might be preserved. There may be more room for compromise and common agendas than previously considered. For example, during my visits to ARL campuses, I often encounter more receptivity to minority recruitment when it is presented within the larger context of providing equitable and fair employment practices for achieving a diverse workforce.

Those committed to achieving a diverse workforce and to recruiting minorities must be prepared to engage in this national dialogue with their colleagues in the library and with elected officials, community leaders, university administrations, and national associations. Pursuit of this goal requires preparation and energetic presentation.

It is hard to project what the end result of this national dialogue will be. What we do know is that, demographically, diversity is increasing. The makeup of kindergartens, elementary, and secondary schools

includes more racial and ethnic minorities than ever before. These students are the workforce for the future, and most universities and businesses will need to recruit and train workers from this national pool.

Q How does ARL's Minority Recruitment and Retention Program address affirmative action and can you help libraries explore how the national debate on affirmative action may impact library initiatives to recruit a diverse workforce?

A ARL's Minority Recruitment and Retention Program works in close collaboration with the OMS Diversity Program toward a shared goal of achieving a research library workforce that is representative of the racial and ethnic diversity in the nation. Within these two initiatives, recruitment of a diverse workforce is defined as one of seven areas of diversity to explore with member libraries.[2] The minority recruitment strategies that the program employs are designed to assist ARL libraries develop equitable and fair employment processes and to ensure that qualified minorities are included in the applicant pool, and considered without bias or prejudice. In addition, we focus on how to sustain a hospitable workplace climate for all library employees where each individual feels valued, welcomed, and respected.

Because there is such a low representation of minorities among the professional staff of ARL member libraries, ARL also seeks to assist libraries to do a better job of recruiting minorities to the profession. The goal of the ARL Minority Recruitment and Retention Program is a diverse pool of candidates for any available position. We pursue this by encouraging more minorities to pursue an accredited graduate degree program and by ensuring that minorities who already hold degrees are aware of the career opportunities in ARL libraries.

OMS promotes the development of library-wide diversity programs that enable staff to explore issues from all sides, so that the learning process is open and instructive. Rather than shy away from the controversy surrounding affirmative action, we encourage institutions to enable staff, university faculties, and students to become engaged. It is through honest, open dialogue that information is shared and future agendas are shaped.

[1] Adapted from *Handbook for Faculty Searches with Special References to Affirmative Action*, Michigan State University, Office of the Provost, Department of Human Relations, 1989-90.

[2] See "Seven Components of a Successful Library-wide Diversity Program," ARL 180, May 1995, pp. 12-13.

TQM: Step One to Designing Processes that Deliver Continuous Value to the Customer

by John R. Secor, CEO, Yankee Book Peddler, Inc.

This article is an abridged version of an address delivered at the 1st International Conference on TQM and Academic Libraries held in Washington, DC April 20-22, 1994. The complete proceedings will be available in August from the Office of Management Services.

Many business journalists are calling TQM a failed fad, and one cause of failure is that businesses adopt off-the-shelf total quality programs without having the necessary organizational underpinnings. Because TQM must be woven into an organization's strategic objectives, quality must be introduced by executives who are committed to improving performance and who are willing to lead the effort.

Every leader and manager views his or her era as especially provocative, as uniquely chaotic, requiring radical and revolutionary change to set things right. While we certainly do live in challenging, some say unstable, times I don't believe that we should approach change with a revolutionary mindset. Nor do I believe that quality is an option; it is an imperative. Customers' expectations and choices have increased in this technological culture. TQM provides a basis by which companies can apply strategy, innovation, and action to bring about growth and improvement while taking care of employees and customers. It is the key to success in the 1990s.

Organizational Underpinnings

Before you can even begin to plan a total quality initiative you'll have to answer the question, "What business are we in?" Then ask: "Why are we considering TQM?" While many librarians, understandably, do not view the library as being a business, nor themselves as businesswomen or businessmen, they are, nevertheless, being admonished to become more business-like. In other words, initiate those business activities that will enable you to be more successful. However, no company or library should undertake a total quality program until the strength of the following five underpinnings are assessed and judged able to support the effort. These are: strong leadership, a definition of mission and vision, human resources involvement, a commitment to training, and a commitment to effective internal and external communications.

Strong Leadership

According to Michel Robert, strong leadership consists of three fundamental skills: strategic thinking, innova-

tive thinking, and the "ability to deal with operational problems and decisions successfully."[1] Senior executives and managers, as they sharpen their own ability to think strategically and creatively, must develop a culture that encourages everyone to innovate. A leader's objective should be to educate employees, so that they can both recognize opportunities that already exist and use change to create new opportunities. Today, far too many talented managers have been assigned to solving problems rather than to nurturing opportunities; leaders must extricate their key people from such damage containment activity and together start to think of ways to expand the business.

Mission and Vision

Douglas Schaffer emphasizes clarity of mission. "A company must begin the improvement process by defining their strategic business goals and integrating these into a plan to significantly improve organizational performance. The first step, analyzing the situation that creates the need for action and clarifying what needs to be accomplished, is probably the most important and the most overlooked." [2]

Just as businesses must recognize what they do best, library leaders must understand the strengths and weaknesses of the library, and be focused on improving every process that is critical to success. This also involves knowing your competitors. Libraries already work in a competitive environment, with today's intra-institutional competition for funding, and tomorrow's information superhighway. To get your fair share of resources you need to know who you are today and who you want to be tomorrow.

Human Resources

Human resources and training staff play a critical role in helping employees to acquire new skills and adjust to new responsibilities. We discovered during our own assessment that we had not conducted a new employee orientation in over six months, and that on-the-job training was usually being conducted by the least productive employee. We almost immediately instituted ongoing monthly seminars that covered a wide range of topics, including time management, negotiating, managing change (the most popular to date), and listening skills. We also implemented a supervisor's training program and a management development program. Since Yankee Book Peddler adopted TQM in 1990, our training budget has more than quintupled. Unless you are both willing to and able to increase your training budget, do not even consider TQM.

Internal and External Communications

Since the change to a total quality system involves the workforce, employees must have a say in how their work is to be done and should not have to deal with surprises. They must also understand the reasons why the organization is focusing on TQM, as well as the goals that have been set. Rapid change requires frequent and effective communications. Most companies use a variety of tools to communicate — from monthly newsletters to quarterly staff meetings.

In addition, I strongly suggest that libraries develop marketing strategies that effectively communicate to students and faculty the essence of your organization's mission and vision. The customer has to be made aware of the library's strengths. And like the "listen to the customers" component of good internal communication, good external communication involves listening to customers to know how they view the services the library provides.

One final note regarding the pace of change that you should seek as you redefine your library: I am a fan of incremental improvement. Susan Lee, Associate Librarian of the Harvard College Library, writes that, "In changing an organization's culture, it is essential to remember that many small steps create change . . . We are focusing on building small wins and making continuous progress."[3] Robert Schaffer and Harvey Thompson urge us to replace ". . . large-scale, amorphous improvement objectives with short-term, incremental projects that quickly yield tangible results . . ."[4]

If you already have a TQM program in place, I urge you to stick with it. Avoid being seduced by panaceas that promise fast-paced improvement. If you don't have a continuous improvement program in place and are thinking about funding a revolution, don't. Alone, TQM will not enable your company to meet strategic objectives, but it will play a big part. TQM is woven into my company's strategic business plan and continues to help us meet our goals. In 1986, Yankee Book Peddler employed 154 people. Today, we number 175 — a 14% increase over eight years. Our sales, over the same eight years, increased 200%. TQM works!

[1] Michel Robert, *The Essence of Leadership* (New York, NY: Quorum Books, 1991): p. 3.

[2] Douglas Schaffer, "Why Total Quality Programs Miss the Mark," *The Journal for Quality and Participation*, vol. 16 (September 1993): p. 20.

[3] Susan Lee, "Organizational Change in the Harvard College Library: A Continued Struggle for Redefinition and Renewal," *Journal of Academic Librarianship*, vol. 19 (September 1993): p. 18.

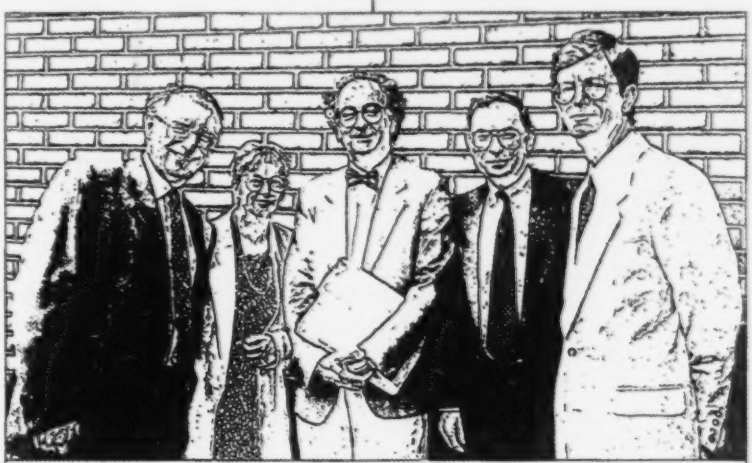
[4] Robert H. Schaffer and Harvey A. Thompson, "Successful Change Programs Begin with Results," *Harvard Business Review* (January-February 1992): p. 86.

Office of Scientific and Academic Publishing

Ann Okerson, Director

Follett Delegation Visits AAU, ARL

On June 5, 6, and 7, representatives of the Higher Education Funding Council for England (HEFCE) visited the Association of American Universities (AAU) and ARL. The delegation included Sir Brian Follett (Vice-Chancellor, Warwick University and Head of the recent "Follett Review Group" that laid out a framework for managing information in U.K. universities during an age of technology change), Professor Graham Zellick (Queen Mary and Westfield College, London), and Bahram Bekhradnia (HEFCE).



The U.K. delegation with members of the AAU/ARL Intellectual Property Task Force. From left to right, Sir Brian Follett, Vice-Chancellor, Warwick University; Pamela Samuelson, Professor of Law, University of Pittsburgh; Bahram Bekhradnia, HEFCE; Graham Zellick, Professor, Queen Mary and Westfield College; James O'Donnell, Professor of Classics, University of Pennsylvania.

The visitors' purpose was to explore common ground between U.K. and U.S. universities, frames of reference being the "Follett Report" (1993) and the AAU Research Libraries Task Force Reports (1994). The main objective of the visit was to explore current copyright developments in the U.S. and their relationship to the escalating costs of journal information. Discussions were held at ARL with members of the AAU/ARL Intellectual Property Task Force to review the options the IP-TF is pursuing to address the opportunities and problems in the current environment.

Several topics recurred throughout the three days of discussion:

- Is copyright ownership a key issue for university cost saving efforts? What data exist or can be gathered to demonstrate that changing academic IP ownership and management would actually save money? What information and copyright management strategies will save money for universities?
- What changes are desirable in faculty practices in regard to copyright transfer or licensing? What can universities do to provide copyright information and services to faculty?
- What is the future of publishing? Will pre-publication peer review be enhanced or even replaced by new, equivalent practices (wide commentary, ranking/voting systems, readership data)? When will new modes of publishing stabilize enough to give a sense of the best and most appropriate models?
- Science and scholarship are expanding, and there is intense competition for academic positions. This will likely continue even if tenure were abolished and if only a handful of publications could be submitted for a grant or promotion.
- There is a need at least to examine licensing models, particularly on a multi-site scale. While these may offer solutions to "copyright problems" by contracting for wide copying for very low unit costs per campus member, they may cause problems in other ways.

All the participants in the conversations agreed that there are "no silver bullets" (e.g., easy answers) but that experimenting, constructing new partnerships, and transatlantic dialogues should continue.

ARL, AAU Examine Licenses for Copyrighted Materials

In several recent venues, directors of ARL libraries and members of ARL and AAU committees discussed the pros and cons of wide area or comprehensive licenses for copyrighted materials. In late spring, two different sets of visitors joined ARL to contribute to the ongoing discourse.

During a visit to AAU, ARL, and other organizations in the Washington, DC area, representatives of the Higher Education Funding Council for England (HEFCE), including Sir Brian Follett, Vice-Chancellor, Warwick University, described a recent *Call For Proposals* to publishers to participate in a U.K. site license prototype project that would include all of the approximately 100 universities in the United Kingdom.

The HEFCE is considering at least two responses to the *Call* in order to gain more experience in the journal/license arena. The potential benefits of such licenses are that all UK universities would receive paper

and e-subscriptions (if available), and students and faculty in their institutions would be defined as eligible for unlimited copying for educational and research purposes. The visiting delegation also identified risks in pursuing national site licenses. For example, would the publishers selected for such a pilot project attain an unfair competitive edge over other publishers who are not selected? In future years, would universities have bargaining power in the face of publisher price increases? Could individual universities opt out of a national license if they chose to? How would the national license fee be apportioned?

If it proceeds, a UK experiment with site licensing for copyrighted journals will be one that North American research universities will monitor closely.

At the ARL meeting in Boston, Isabella Hinds of the Copyright Clearance Center (CCC) joined the ARL Scholarly Communications Committee for a dialogue about a proposed CCC comprehensive collective licensing program. She and Joe Alen, President of the CCC, also joined the AAU/ARL Intellectual Property Task Force's May 25th meeting in the ARL offices. The CCC described its intentions to introduce a comprehensive collective photocopy license for the academic market. The license would aggregate photocopy reproduction rights for a number of campus uses including classroom use, coursepacks, administration, and other paid-for uses.

The CCC's proposed licensing system was described as: comprehensive, inclusive, flexible in pricing and payment structure, and accommodating of fair use in a way that preserves academia's rights under the Copyright Act. The initial offering will not extend to digital uses of material in digital form but will include substantial amounts of material that can be stored in digital form for the purpose of creating a paper copy.

Both the Scholarly Communication Committee and the Intellectual Property Task Force engaged the CCC representatives in questions that probed where the program might have value for universities. Some of the concerns included: How would the CCC licenses adjust for fair use, a very high percentage of library copying? What are the incentives for the university signing a license that includes coursepacks when currently coursepacks are purchased directly by students? Will "hit" articles be priced higher than little-requested articles? Electronic reserves may be an area where universities could use a license; when would the CCC license include uses of material in electronic form? Aggregation reduces feedback to the publisher, so how would a publisher learn which specific articles or chapters are heavily used?

The IP-TF agreed to develop a list of issues and questions that could be pursued in further discussions with the CCC as their program unfolds.

Recent OSAP Publications Available

Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing

In June, ARL's OSAP released *Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing*. This book captures an Internet discussion about scientific and scholarly journals and their future that took place on a number of electronic forums starting in June 1994 and peaking in the fall. This work is one attempt to capture a key conversation between the stakeholders in scholarly communications about the powerful opportunities that electronic networking technologies offer to scholars and scientists and the future of publishing.

Scholarly Journals at the Crossroads makes publishing history. It is the first time that a book derived from a series of wide-ranging Internet discussions on a scholarly topic recreates (insofar as possible) an email experience for a general academic and publishing audience.

In their conclusion, Ann Okerson (ARL) and James O'Donnell (Professor of Classics, University of Pennsylvania), the editors of this 9-month long networked conversation write, "This is a book about hope and imagination in one corner of the emerging landscape of cyberspace. It embraces passionate discussion of an idea for taking to the Internet to revolutionize one piece of the world of publishing."

Directory of Electronic Journals . . .

In late May, ARL's OSAP produced the 5th edition of the hard-copy standard reference work for serials on the Internet, the *Directory of Electronic Journals, Newsletters, and Academic Discussion Lists*.

The new edition of the *Directory* describes nearly 2,500 scholarly lists and 675 electronic journals, newsletters, and related titles such as newsletter-digests — reflecting an increase in the number of electronic resources of over 40% since the 4th edition of April 1994 and 4.5 times larger than the 1st edition of July 1991. The *Directory* provides instructions for electronic access to each publication. The objective is to assist the user in finding relevant publications and connecting to them quickly, even if he or she is not completely versed in the full range of user-access systems.

Diane Kovacs of the Kent State University Libraries continues to head the KSU team of individuals who collaboratively created the 5th edition's scholarly discussion lists and interest groups section. Principal compiler of the journals and newsletters section is Lisabeth A. King, Research Assistant for ARL OSAP, with support from Dru Mogge, Electronic Services Coordinator. Ann Okerson is overall project coordinator for the Directory.

Paul Evan Peters, Executive Director

NETWORKED INFORMATION RESOURCE DISCOVERY AND RETRIEVAL

The Coalition for Networked Information continues to have a strong interest in accelerating the development of sophisticated navigational tools, now commonly referred to as networked information resource discovery and retrieval (NIDR). A panel at the Spring Task Force Meeting in Washington, DC highlighted several exemplary initiatives: a CNI NIDR white paper, Harvest, and Portfolio.

Avra Michelson, Digital Libraries Department, MITRE Corporation, introduced a plenary panel on advances in NIDR. She is part of a team, along with Clifford Lynch, Director, Library Automation, University of California, Office of the President, Craig Summerhill, Systems Coordinator and Program Officer, Coalition for Networked Information, and Cecelia Preston, that is developing a Coalition white paper on the topic of networked information resource discovery and retrieval.

CNI NIDR White Paper

Clifford Lynch set the context for the panel by describing the Coalition's white paper initiative, which began in the fall of 1994 with the objectives of framing the major research problems in the NIDR area and suggesting where standards work might be fruitful.

The four chapters of the paper will include: introductory material, architectural issues, content issues (metadata), and a discussion that looks beyond the current framework and discusses extensions that will be needed as software becomes more autonomous.

Lynch stated that the NIDR "problem" has two components. The first is discovery, which covers a large spectrum of activities, e.g., searching, organizing, browsing, selecting among items, and ranking items. The second component, retrieval, is sometimes narrowly viewed as the act of downloading information to a workstation, but it should have the broader meaning of making use of information resources.

At present, Lynch stated, NIDR is considered as a graft-on to the existing uncontrolled, independent world of Internet resources. He asked, "When will we see information spaces develop that integrate NIDR as part of their basic architectural design?"

The CNI paper will examine the idea of tools defining information spaces as, for example, Gopher defines Gopherspace. Lynch identified several other issues that will be addressed in the CNI paper. First, an increased emphasis on selection and ranking of information resources in the networked environment is needed. Discovery is not simply a process of inundating the user with candidate resources. Second, the developing mix of free and for fee information resources on the network has implications for the existing and future framework of NIDR tools. Information retrieval protocols will have to become substantially richer to accommodate the needs of pricing objects. He stated that simple ftp models will become an increasing liability for the next generation of NIDR.

A third basic issue to be addressed in the white paper is the current conception that humans are directly in command of the process, e.g., typing in search commands. At the same time, we all have visions of worlds that go way beyond this, worlds in which searching is facilitated by various types of software agents, and a world in which we can link disparate information resources together. It may be that beyond retrieval, the next goal of NIDR is interoperability: linking a remote collection of information organizationally with a local resource. The CNI NIDR team has been struck by the difference between the immediate goals of many tools and the future world, which is much more mediated by software.

A draft of the first chapter of the NIDR white paper is available on the CNI server and the team hopes to produce a full draft by fall. The paper will be discussed with various communities and by attendees at the Fall Task Force Meeting.

Harvest

Michael Schwartz, Associate Professor, Department of Computer Science, University of Colorado, spoke about Harvest, an efficient, community-tailored resource discovery tool. He began his presentation with a critique of current navigational tools, e.g., Archie, Veronica, Web robots, and WAIS. He noted that none of those tools has a community or topical focus; they all have poor scaling characteristics; they use unstructured, low-quality data; and they have "hard-wired" search algorithms.

The tool that Schwartz has developed, Harvest, uses an efficient, distributed gathering architecture coupled with topical and/or community focused "Brokers" (an index/search interface that accommodates many engines). Harvest addresses each of the problems inherent in other resource discovery tools in various ways. Its efficient gatherer can run at a number of sites and an administrator can configure the data that will be collected. A sub-program can do selected text extraction, e.g., search only titles, abstracts, etc. and uses much less space than a tool like WAIS but delivers high precision and recall. It includes a plug-and-play index/engine in each Broker and its architecture does not limit it to text. Sample brokers have been built with computer science

technical reports, the SEC EDGAR files, and Web Homepages. It uses network-aware caching and replication for scalable access.

A key feature of Harvest is its network efficiency. It has the potential to greatly alleviate the network bottlenecks that develop when particular objects or particular servers become very popular with network users.

Schwartz is now beginning to work on supporting more powerful environments than the unstructured, anarchic content of much of current Internet. He is interested in integrating commercial search and retrieval engines, billing and encryption systems, content markup tools, Z39.50 and other query interfaces into Harvest. More information is available at: http://harvest.cs.colorado.edu/.

Portfolio

Ann Mueller, Technical Manager, Stanford University described Portfolio, an enterprise-wide information management system prototyped at Stanford in 1994 and developed jointly by librarians and information technologists. The project provides an infrastructure for the institution's distributed computing architecture. It is an example of a multi-faceted information system, including information on the institution's faculty, computing resources, library (including links to the UC's MELVYL catalog); information on the local community, and links to Internet resources throughout the world.

The developers seeded the collection with 400 resources and now have 3,000 internal and external resources. Decisions on what will be included in Portfolio are made by information providers and subject specialists, who provide initial information about objects that is then augmented by library catalogers. Mueller noted that while the full potential for the use of metadata in this framework has not yet been realized, each item does have a metadata profile and the system uses WAIS for indexing.

A key attribute of this initiative is that it takes disparate resources and services and treats them as a single entity, presenting them in a consistent and flexible presentation manner. The Portfolio developers are confident that they can adapt this system to the next generation of information clients and adapt to new information and delivery paradigms.

The CNI NIDR white paper and other documents from the Spring 1995 Task Force Meeting are available on the Coalition's Internet server. To access the Coalition's homepage, the URL is http://www.cni.org/CNI.homepage.html. Via gopher, point your gopher client to gopher.cni.org 70.

– Joan Lippincott, Assistant Executive Director

CNI Receives Grant for New Learning Communities Program

The Coalition has received a grant from the Department of Education under the Higher Education Act Title IIB program to fund CNI's New Learning Communities Initiative.

The initiative is designed to promote cross-fertilization of ideas among professionals in higher education institutions across the country who use networks such as the Internet to enrich their curriculum and broaden their students' learning experiences. The program brings together institutional or inter-institutional teams of faculty, librarians, information technologists, instructional technologists, and students, to share perspectives, critique each other's programs, and develop a set of "best practices" for the benefit of the larger educational community.

The goals of the program are:

- To provide a mechanism and a venue where experienced, collaborative teams of individuals working on curricular programs involving the use of networks and networked information can benefit from peer advice, moral support and program critiques;
- To provide the means for others in the academic community, nationally and internationally, to benefit from the expertise and experience of teams who have implemented teaching and learning programs using networks and networked information; and
- To encourage and assist librarians and information professionals to serve as partners with teaching faculty members in the design and delivery of instruction using networking and networked information.

The Coalition will offer a program consisting of three components that encompass a total of five days of face-to-face interaction and several months or longer of online interaction. The centerpiece of the program is a three-day conference based on the successful New Learning Communities conference that the Coalition offered last year. Following on this year's three-day conference, two other conferences will be used to disseminate the lessons learned from the conferences of both years and to stimulate additional institutions to develop similar curricular projects. All three events will emphasize the role of networked information (content), not just networks (conduit) and the expertise of the librarian as a team member in developing new or revised curriculum.

The Coalition will issue a call for team participation in the three-day conference, which will be invitational. The second and third events in the program will be open registration conferences. The program was developed by CNI's Working Group on Teaching and Learning under the leadership of Philip Tompkins, Estrella Mountain College, and Susan Perry, Mt. Holyoke College.

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

ACCESS AND DISSEMINATION OF FEDERAL GOVERNMENT INFORMATION: A FRAMEWORK FOR FUTURE DISCUSSION

This is a working document currently being used as a baseline set of principles to evaluate proposed changes to government information dissemination policies and practices. It was prepared by a coalition of many library associations.

Public access to government information is a basic right of the American people and the government has an affirmative obligation to provide it. Achieving the ideal of universal public access requires cooperation at many levels. Formal partnerships, with mutual responsibilities and obligations, must be established among the "Program Partners" responsible for creating, disseminating, accessing, using, preserving and evaluating government information. These partners are government agency information producers, depository and other libraries and other information providers, a central coordinating government body, and information users. The emergence of new technologies resulting in new avenues for disseminating government information in electronic format has forced all partners in this process to reexamine current practices with an eye toward improved efficiency and increased public access.

Toward that end, the library community has identified several key elements fundamental to enhancing public access to government information. In addition, it has delineated the responsibilities of each partner in the life cycle of government information. Three essential components of this process were: 1) that the current information infrastructure already employs multiple channels for the dissemination of public information; 2) that for the past 100 years, the Government Printing Office has administered the Federal Depository Library Program (FDLP) and centrally coordinated the printing, procurement, and distribution of depository publications, including electronic products such as CD-ROM; and 3) that within the FDLP, participating libraries make significant contributions of staff and resources toward accessing and preserving Federal information.

Mission Statement for a Federal Dissemination and Access Program to Libraries and the Public

The mission for an enhanced Federal Information Dissemination and Access Program is to guarantee ready, equal, equitable, no-fee access to government information regardless of format to the people of the United States of America through participating libraries. Building on the success of the current FDLP, the nation must develop a broader Federal Information Dissemination and Access Program.

The Future of Federal Government Information

Electronic dissemination is an increasingly significant force in the future of Federal information dissemination and access. Electronic information offers opportunities to allow users, producers, and providers to interact in radically different ways. For users, the response time between information request and delivery diminishes and the amount and variety of information products expands. For producers, broad and efficient dissemination may result in cost-savings and rapid feedback on information content, viability, and usability. With a diversity of governmental providers and delivery mechanisms, many users will be able to access information directly from information producers. At the same time, the traditional role of librarians as providers of information is expanding to also include that of intermediary as users require increasingly sophisticated guidance in navigating a complex information environment. These developments will require a cooperative effort among all parties to ensure a successful transition to an electronic environment.

Today, the Government Printing Office, the National Technical Information Service, the Library of Congress, and individual agencies share in the dissemination of electronic government information. The decentralized and transient nature of electronic information dissemination has resulted in a need for a "Central Authority" to oversee and coordinate the multiple providers of government information products and services and to guarantee continued, equitable, no-fee public access to government information. At the same time, it must be understood that government information still resides and will continue to be distributed in traditional print formats and that for many products print will remain the required format for use. The evolution to electronic formats will not happen overnight, and the need to access and archive 150 years of traditional print material will never disappear.

Essential Components of an Enhanced Program

The evolution of the Federal Depository Library Program to an enhanced Federal Information Dissemination and Access Program (hereafter referred to as the Program) must be conducted in consultation with current Program participants, information users, and others including Congress, Federal agencies, libraries, library organizations, the Depository Library Council to the Public Printer, and other appropriate groups.

In addition, any legislative changes related to the publishing and dissemination of government information must include statutory authority to:

- Provide for a system of equitable, effective, no fee, efficient, and dependable access/distribution of all formats of government information from all branches of government
- Provide for Congressional oversight responsibilities and the ability to enforce agency compliance with relevant laws, regulations, and policies
- Provide for a strong, centralized, coordinated, and managed Federal information dissemination and access program
- Provide for a system that includes Congressionally designated and/or by-law depository and partner libraries which have agreed to provide access to federal government information
- Provide for balance between usability and cost-effectiveness for the public, for libraries, and for govern-

ment agencies when determining appropriate formats for publishing and disseminating government information

- Provide for the inclusion in the Program of all appropriate government information publications and services from multiple distributors and partners, including but not limited to the Government Printing Office, the National Technical Information Service, the Library of Congress, and Federal Agencies
- Provide for funding the Program at the level necessary to comply with statutory requirements and to ensure its effectiveness and participation in the National Information Infrastructure

Life Cycle of Government Information

The various stages in the life cycle of government information provide the framework to examine the role of each Program participant in the Creation, Dissemination, Access, Use, Preservation, and Evaluation of government information. Each partner must accept and implement their respective responsibilities without regard to format. The following table provides an overview of the responsibilities of each partner in the government information life cycle.
– Working Document, June 26, 1995

Partner Responsibilities in the Life Cycle of Government Information

	Producing Agencies	Central Authority	Libraries	Users
Creation	Create government information in a variety of useful formats and in consultation with other program partners Comply with 17 USC 105	Facilitate communication between Program partners in the design and development of information products and services	As intermediaries, cooperate with Program partners in the design and development of information products and services and facilitate user feedback	As primary clientele, cooperate with Program partners in the design and development of information products and services
Dissemination	Provide government information products and services through multi-faceted dissemination programs at no cost to the public through participating libraries	Distribute or coordinate the distribution of products and services in a timely fashion Provide a variety of dissemination options and channels	Work with other Program partners to ensure the timely dissemination of government information through a variety of dissemination programs	Work with other Program partners to require government information is being disseminated through a variety of channels and that it is appropriate to their needs
Access	Release products and services in a timely and usable fashion Notify Program partners through the Central Authority about existing, planned, changing, or discontinued products and services Develop GILS and other locator systems to help identify government information products and services	Identify, obtain, or provide access to government information products and services regardless of format Develop catalogs, pathfinders, and other locator systems to identify governmentinformation products and services Establish standards and enforce regulations that ensure Program compliance In sales program, charge no more than marginal cost of dissemination	Provide timely access to government information at no fee to the user regardless of their geographic location or ability to pay Share resources and expertise through interlibrary loan, document delivery, reference assistance, and electronic networks Supplement distributed Program products with commercially produced indexes, publications and equipment necessary to meet public needs	Own publicly supported government information products services and therefore must always have guaranteed access to them
Use	Provide documentation, software, technical support and user training	Distribute/coordinate access to government information to Program partners at no charge	As intermediaries, assist users in the identification, location, use and acquisition of government information regardless of format	Government information products and services must always be provided in usable format to the public
Preservation	Cooperate with other Program participants to ensure all information products are archived, accessible, accurate and compatible with current and future technologies	Ensure that all information products are archived, accessible, accurate and compatible with current and future technologies	Cooperate with other Program participants to ensure that all information products are archived, accessible, accurate and compatible with current and future technologies	Must always have access to government information in well-preserved , accessible, and accurate condition
Evaluation	Solicit and consider input from Program partners in the evaluation of government information products and services	Provide avenues for the evaluation of the Program including advisory councils, Federal agencies, libraries, and the general public	Work with other Program partners to determine the success of the Program through formal and informal evaluation	Establish criteria and provide through formal and informal evaluation the necessary feedback to determine the success of the Program

STATISTICS & MEASUREMENT

Martha Kyrillidou, Program Officer for Statistics & Measurement

PRESERVATION ACTIVITIES IN ARL LIBRARIES

The recently published *ARL Preservation Statistics 1993-94* confirm that preservation microfilming activity in ARL libraries continues to grow, with 127,650 volumes preserved on microfilm last year. The report also indicates a continued reliance on special grants or external funds, such as grants from the National Endowment for the Humanities, to carry out preservation microfilming activities. In 1993-94 such grants accounted for 12% of the total preservation expenditures for the 115 reporting institutions. Additionally, over the past six years, in-house microfilming production has steadily declined while use of contract filming agencies has expanded.

Overall, the expansion of preservation programs that occurred through the 1980's and into the early 1990's appears to be leveling off. For example, the current data show only slight increases over 1992-93 in the area of total preservation expenditures and the number of personnel involved in preservation activities.

The *ARL Preservation Statistics* is an annual publication and is available for sale from ARL. To order, contact the Publications Department at (202) 296-2296 or email arlhq@cni.org. There is also an electronic edition available via the ARL gopher; select Statistics and Measurement or Preservation.

ARL LIBRARY PRESERVATION PROGRAMS, 1989 - 1994

Category	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Number of Institutions Reporting	107	115	117	119	114	115
Number of Preservation Administrators	76	86	90	95	91	92
Total Staff Library-wide Engaged in Preservation Activities	1,621	1,761	1,744	1,867	1,842	1,900
Total Preservation Expenditures	$60,714,802	$66,045,392	$70,705,449	$76,550,655	$76,793,364	$77,674,363
Conservation Treatment (volumes)	Contract: Minor: 2,336 Interim: 8,393 Major: 4,623 In-house: Minor: 658,711 Interim: 176,901 Major: 17,113 Total contract: 16,801 Total in-house: 888,868	Contract: Level 1: 5,162 Level 2: 4,906 Level 3: 3,090 In-house: Level 1: 682,735 Level 2: 272,464 Level 3: 32,233 Total contract: 15,697 Total in-house: 987,432	Contract: Level 1: 3,970 Level 2: 2,317 Level 3: 2,376 In-house: Level 1: 668,597 Level 2: 271,508 Level 3: 16,253 Total contract: 8,717 Total in-house: 956,358	Contract: Level 1: 2,979 Level 2: 7,957 Level 3: 2,794 In-house: Level 1: 1,035,955 Level 2: 257,934 Level 3: 21,665 Total contract: 18,029 Total in-house: 1,316,757	Contract: Level 1: 4,756 Level 2: 3,826 Level 3: 3,208 In-house: Level 1: 664,860 Level 2: 262,022 Level 3: 21,033 Total contract: 12,278 Total in-house: 952,097	Contract: Level 1: 2,703 Level 2: 3,054 Level 3: 3,028 In-house: Level 1: 680,602 Level 2: 243,421 Level 3: 20,701 Total contract: 8,424 Total in-house: 982,830
Microfilming	Titles: 75,198 Volumes: 60,502 Exposures: 18,254,133	Titles: 68,904 Volumes: 92,093 Exposures: 23,687,873	Titles: 77,740 Volumes: 123,233 Exposures: 28,264,637	Titles: 93,052 Volumes: 204,934 Exposures: 28,892,445	Titles: 104,818 Volumes: 124,455 Exposures: 32,844,044	Titles: 106,733 Volumes: 127,650 Exposures: 29,900,149

Source: *ARL Preservation Statistics*. (Washington, DC: Association of Research Libraries, 1995.)

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Office of Management Services

Susan Jurow, Director

1995 Fall/Winter OMS Training Schedule

September 11-13, Washington, DC
Facilitating Change Institute:
The Internal Consultant
Participants will examine the basics of organizational development; the methods and strategies of facilitating meaningful and successfully implemented change; the dynamics of organizational change; and the importance of transitions. Ample opportunity will be allotted for practicing skills and relating concepts to the workplace.
$350 ARL Members, $420 Nonmembers

October 4-6, Chicago, IL
Human Resources Institute
Participants will explore the role of the human resources specialist in organizational change; best practices in human resource administration, staff development and training programs; new models of transforming library organizations; and approaches to work redesign.
$350 ARL Members, $375 Nonmembers

October 11-13, Boston, MA
Training Skills Institute:
Managing the Learning Process
This program follows a five-stage model for the development of effective training. Participants will learn about analyzing needs, developing learning objectives, designing curriculum, selecting methods, delivering training, and evaluating outcomes. A practicum experience is provided as part of this program.
$400 ARL Members, $475 Nonmembers

November 6-9, Atlanta, GA
Implementing Continuous Improvement Programs in Libraries
Designed to prepare participants to plan, implement, and evaluate a continuous improvement process in their library, this program focuses on the basic tools for quality improvement, including techniques for better meetings, how-to's of using groups and developing teams, and methods of improving service delivery.
$490 ARL Members, $550 Nonmembers

November 13-17, St. Louis, MO
Library Management Skills Institute II:
The Management Process
This intensive program uses a simulated library workplace, in the framework of a learning organization, to focus participant's ability to have a positive influence on the overall performance of the organization. Emphasis is placed on the development of observation, diagnosis, and action planning skills to promote effective problem solving as well as recognition of organizational opportunities.
$695 ARL Members, $745 Nonmembers

General Program Information
Training programs include lectures and presentations while emphasizing participant involvement, special activities, and group discussion. They systematically introduce a range of concepts and techniques and allow participants the opportunity to develop and practice applications for their own workplaces. Participants can expect a nonthreatening, but challenging environment which encourages colleagues to exchange views and learn from others who share common organizational experiences and concerns.

For further information and registration, please contact Christine Seebold, OMS Training Program Assistant at the OMS Offices (202) 296-8656, or email cseebold@cni.org.

Diversity Seminars Offered

Kriza Jennings, OMS Program Officer for Diversity and Minority Recruitment, will lead two diversity seminars in Washington, DC this fall. *Implementing Minority Recruitment Strategies* will be offered on September 21-22 and will explore approaches to increasing recruitment of a multicultural workforce. Examples of effective strategies and resources for developing a recruitment program will be provided. Components for a successful recruitment program will be discussed.

Retention of a multicultural workforce requires deliberate and conscientious attention to developing the climate needed for diversity. *Implementing Minority Retention Strategies*, scheduled for September 25-26, will examine the workplace where employees feel welcomed and valued as it is an important aspect of a successful diversity program.

Each seminar is priced at $250 for ARL members and $300 for nonmembers. For groups of four or more, a 15% discount applies. To register or for more information on these and other OMS Diversity Program seminars, please contact Marianne Seales at (202) 296-8656 or email marianne@cni.org.

SPEC Explores Library Signage

SPEC Kit #208 *Effective Library Signage* was published in May. Written and compiled by Kate Ragsdale, University of Alabama, and Don Kenney, Virginia Polytechnic Institute and State University, this Kit documents the tremendous variety of library signage management methods currently used in ARL institutions. Information on design, construction, location and installation, vandalism, temporary signs, and ADA compliance are included.

Contact the ARL Publications Department at (202) 296-2296 or email arlhq@cni.org. Information on this and other OMS products and services can be found on the ARL Gopher (gopher://arl.cni.org) and World Wide Web (http://arl.cni.org).

G. Jaia Barrett, Deputy Executive Director

NEH GRANTS

The following grants were awarded by the National Endowment for the Humanities.

Brown: To support reading programs at libraries in six states that foster discussion of the topic, "What is America, and What Do We Want It To Be?"

UC - Berkeley: To support the development and testing of computerized procedures for retrieving archival documents and photographic images via the Internet.

UC - Riverside: To support the addition of records to the North American Imprints Project, a union list providing a full bibliographic record for all monographic material printed in North America before 1801.

Center for Research Libraries: On behalf of the South Asia Microform Project, to support the preservation rnicrofilming and cataloging of volumes in major languages of India held by the library of the University of Bombay.

Chicago: To support the cataloging and preservation of deteriorated volumes relating to the history, art, archeology, languages, law, and religions of the ancient Near Eastern and Mediterranean regions.

Columbia: To support the cataloging and preservation of material in the Joseph Urban Collection, which documents the theater arts during the first half of the 20th Century.

Cornell: To support cataloging and microfilming of volumes pertaining to Icelandic history, language, and literature from the 16th through the 20th centuries.

Delaware: To support the preservation microfilming of newspaper titles as part of Delaware's participation in the U.S. Newspaper Program.

Duke: To support cataloging, conservation treatment, and conversion to digital format of papyri dating from the 3rd century B.C. to the 8th century A.D.

Florida: To support cataloging and preservation microfilming of newspaper titles as part of Florida's participation in the U.S. Newspaper Program.

Harvard: To support the preservation microfilming of embrittled volumes documenting the history of American business and education, Slavic history and culture, Western European history, and international law.

Illinois - Urbana: To support the cataloging of newspaper titles as part of the state's participation in the U.S. Newspaper Program.

Johns Hopkins: To support digitization of the Lester L. Levy collection of popular sheet music dating from 1780 to 1960 and making these materials available on the Internet.

Maryland - College Park: To support the preservation microfilming of and improved access to Japanese newspapers and newsletters published between 1945 and 1949 during the Allied Occupation.

Nebraska - Lincoln: To support the preservation microfilming of archival material documenting Mari Sandoz's literary career and her anthropological research about Native Americans.

New York Public: To support the arrangement, description, and rehousing of organizational records and personal papers that document the post-civil rights era from 1958 to the present.

To support the arrangement and description of records, microfilm, and audiotapes from the publishing house of Farrar, Straus & Giroux, spanning the period from 1945 through 1980.

To support the preservation of images of theater and vaudeville performances in New York from 1904 to 1936.

Princeton: To support the organization, description, and cataloging of records of the Association on American Indian Affairs that provide a perspective of 20th Century Native American history.

Tennessee - Knoxville: To support the cataloging of newspaper titles as part of Tennessee's participation in the U.S. Newspaper Program.

Texas - Austin: To support the preservation on microfilm of volumes in the history of art, architecture, and music; languages and linguistics; bibliography; and the history of science and applied sciences, published in and about Latin America.

To support preservation microfilming of newspaper titles, as part of Texas' participation in the U.S. Newspaper Program.

Wayne State: To support a project in cooperation with staff from North Carolina Central University, of onsite surveys of the archival holdings and special collections of 33 historically black colleges and universities in six states.

Yale: To support the preservation microfilming of and improved access to embrittled and endangered volumes concerning the general history of the British Isles and the religious doctrines and movements that originated there.

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Kendon Stubbs Serves As Visiting Program Officer

Kendon Stubbs, Associate University Librarian at the University of Virginia, has been appointed ARL Visiting Program Officer. He will develop a practical guide on how libraries could measure user satisfaction and quality service. User studies and provision of quality service are increasingly important to ARL member libraries in the face of transforming technologies and emerging digital library models. Also during the coming year, he will develop templates for ad hoc statistical reports as the ARL Statistics and Measurement Program develops custom made products and services. The University of Virginia is supporting Mr. Stubbs who will work one-fifth time on ARL projects during FY 1995-96.

– *Martha Kyrillidou, Program Officer for Statistics and Measurement*

Transitions

Guelph: Michael Ridley was appointed Chief Librarian effective early fall of 1995. He is currently Associate Librarian for Systems at the University of Waterloo.

Indiana: Pat Steele, Associate Dean, was appointed Acting Dean effective July 1.

Maryland: Joanne Harrar will retire as Director of Libraries August 31. Following a sabbatical, she will assume the role of Executive Director for Performing Arts Library Development.

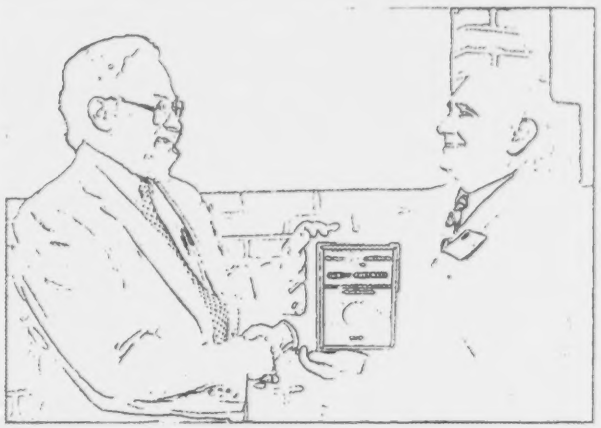
New York State Research Library: Gladys Ann Wells was named Interim Director, effective August 25. She succeeds Jerome Yavarkovsky who has been appointed University Librarian at Boston College.

***

Association of American Universities: Cornelius Pings has accepted reappointment as President.

Coalition for Networked Information: Debbie Masters, Visiting Program Officer for six months, was appointed University Librarian at San Francisco State University, effective August 28. Joan Cheverie was appointed part-time Visiting Program Officer. She is Head of the Government Documents Department at Georgetown University.

National Archives and Records Administration: John Carlin, former Governor of Kansas, was sworn in as Archivist of the United States on June 1. Trudy Peterson who served as Acting Archivist for the past two years, announced her retirement July 3.



ARL Honors Gordon Fretwell

On the left, Gordon Fretwell, Associate Director, University of Massachusetts Libraries, Amherst and on the right, Jerry Campbell, ARL President and University Librarian at Duke University Libraries. Gordon Fretwell was honored for dedicated service to the Association of Research Libraries as compiler of the *ARL Annual Salary Survey* at the recent ARL Membership Meeting in Boston. In the sixteen years of Gordon's work with the Salary Survey, it has grown from a few photocopied pages to one of the Association's most important publications and one of the most valuable tools for the profession in determining compensation levels.

Honors

Joseph A. Boissé, Librarian, UC-Santa Barbara, was named Academic/Research Librarian of the Year by ACRL.

Nancy L. Eaton, Dean of Library Services, Iowa State University, was named winner of the 1995 Hugh G. Atkinson Memorial Award by ACRL, LAMA, LITA, and ACLTS.

Sharon A. Hogan, University Librarian, University of Illinois at Chicago, received the Chinese-American Library Association President's Award in recognition of her leadership for diversity-oriented recruitment and mentoring programs.

In Memoria

Rice University Vice Provost and University Librarian Beth Janet Shapiro died August 3 after a courageous battle with cancer. Prior to coming to Rice's Fondren Library in 1991, she was Deputy Director of the Michigan State University Library. While at MSU she served as an ARL Visiting Program Officer. In her too brief career as director of an ARL library, she served as a member of the ARL Management of Research Library Resources Committee.

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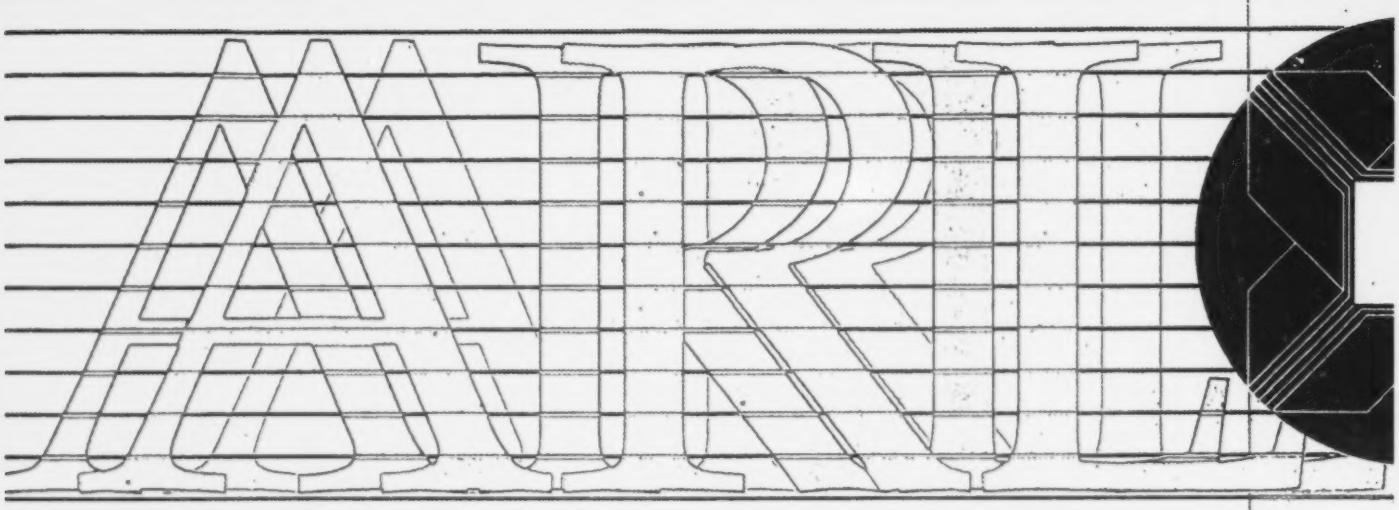

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CALENDAR 1995-96

September 18-19	ARL-SUNY-CLR-CNI-NASULGC Economics of Information Washington, DC
October 17-20	**ARL Board and Membership Meeting** **Washington, DC**
October 30-31	Coalition for Networked Information Fall Task Force Meeting Portland, OR
October 31-November 3	EDUCOM '95 Leading the Way: Technology and Beyond Portland, OR
November 13-15	National Association of State Universities and Land-Grant Colleges 108th Annual Meeting Lake Buena Vista, FL
November 28-December 1	CAUSE95 Realizing the Potential of Information Resources: Information, Technology, and Services New Orleans, LA
January 19-25	American Library Association San Antonio, TX
February 5-6	**ARL Board Meeting** **Washington, DC**
March 25-26	Coalition for Networked Information Spring Task Force Meeting Washington, DC

OMS TRAINING SCHEDULE, 1995 FALL/WINTER

For information see page 13.

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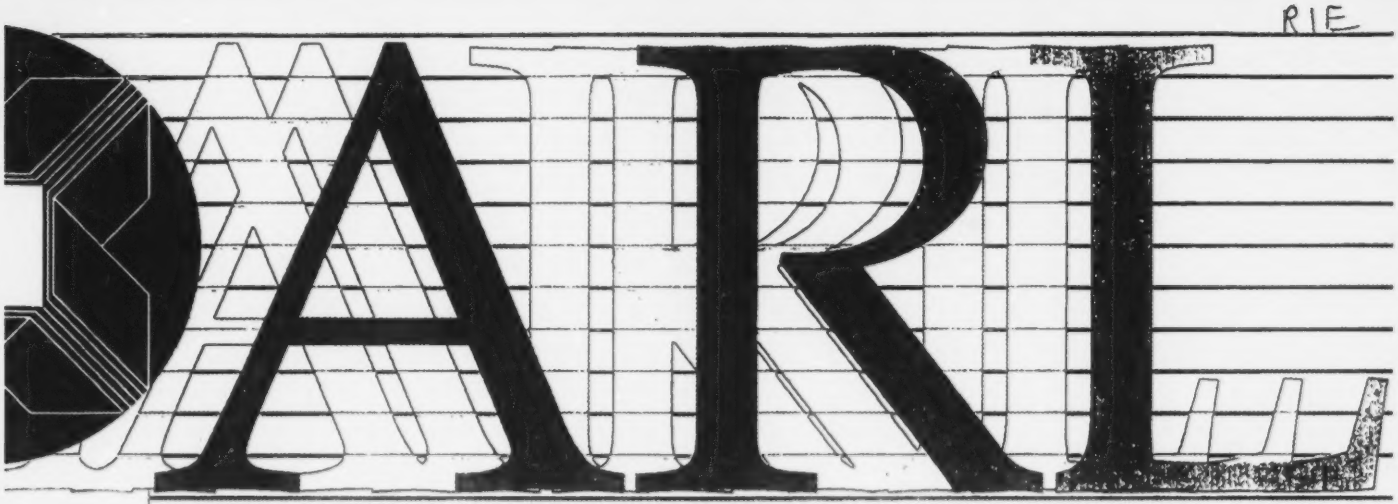

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Current Issues

COMMERCE PROPOSES COPYRIGHT REFORM

Following almost two years of inquiry by the Clinton Administration's Information Infrastruture Task Force Working Group, in September the U.S. Department of Commerce released a White Paper titled *Intellectual Property in the National Information Infrastructure*. This was followed quickly by the introduction of S. 1284, the *National Information Infrastructure Copyright Protection Act of 1995*. The legislation matches the recommendations in the White Paper and seeks to "amend the Copyright Act to bring it up to date with the digital communications age."

This fall, an array of organizations in the library, educational, and commercial sectors are engaged in making an assessment of the proposed copyright reform legislation. As an initial step, ARL and other library associations commissioned the following analysis of the White Paper. The analysis is included in its complete form to encourage its consideration by the widest possible audience. ARL views issues associated with intellectual property management in general — and copyright reform in particular — as a defining set of issues, the resolution of which will have significant impact on the future of scholarly communication within the United States, Canada, and throughout the world. We urge attention to the matters raised in the White Paper and broad scale engagement of the public policy options about to be debated in the U.S. Congress.

Commerce Department's White Paper on National and Global Information Infrastructure: Executive Summary for the Library and Educational Community

by Arnold P. Lutzker, Esq., Fish & Richardson, P.C.

The Commerce Department has released its long awaited "White Paper," which sets forth recommendations on changes to intellectual property laws. The Report of the Working Group on Intellectual Property Rights (the "Report"), which is part of the Information Infrastructure Task Force ("IITF"), provides an extensive discussion of current laws and policies (most notably copyright, but also patent, trademark and trade secret law) as they relate to digital information and reforms that are needed to maintain a legal structure conducive to exploitation of the new technology. *Importantly, it sets the stage for Congressional hearings and legislative reform in the current Congress.*

The *thesis* of the Report is that

> ...unless the framework for legitimate commerce is preserved and adequate protection for copyrighted works is ensured, the vast communications network will not reach its full potential as a true, global marketplace.

The Working Group believes copyright law is not an obstacle to enhancing the information infrastructure, but rather an essential component in making works available. The principal conclusion in the 238 page Report is that current laws are substantially adequate for the task of advancing the national and global information infrastructures (the "NII" and the "GII"). However, some changes to copyright law are urged to eliminate uncertainty which has materialized. As will be discussed below, the Report has a subtle but meaningful

impact on libraries and educational institutions. By emphasizing the economics of copyright over the public interest in accessibility to copyrighted works, it underscores what may be the increasing difficulty of non-profit institutions to secure or grant access to works for little or no cost.

A. Proposed Statutory Amendments

Specifically, the Report recommends amending The Copyright Act of 1976 in the following ways:

1. Clarify Section 106(3) by expressly recognizing that copies or phonorecords of works can be distributed to the public by transmission, and that such transmissions fall within the exclusive distribution right of the copyright owner. Related amendments expand the definitional section a) to recognize publication by transmission and b) to indicate that distributing a copy by a device or process so that it can be fixed at a distant location is a transmission.

   The Working Group is explicit in its belief that transmissions which are stored in a remote computer constitute a public distribution even if they are not viewed, and may also implicate the reproduction and public performance rights. The amendment, however, would remove legal uncertainty as to whether transmissions are distributions under copyright law.

   Comment. While the proposed amendments appear modest, they are based on the premise that *all* transmissions are within the exclusive domain of the copyright proprietor. If that assumption were enacted by the proposed amendments, it would establish a threshold burden for libraries and educational institutions seeking to use digital works. To the extent that the educational exemptions in Section 110 are limitations on the *performance right*, they may not be recognized as exceptions to the *distribution right*. As a result, the impact of these changes on "distance learning," where classroom teaching is not only performed live, but also transmitted to remote locations and stored for future review, could be dramatic. If third party works are incorporated in distance learning classes and transmitted to remote locales where they are independently recorded without prior clearance, that downloading could be held to violate the newly clarified "distribution right."

2. Expand the exemption in Section 108 for *libraries and archives*, which are allowed to engage in certain archival, preservation and lending activities.

   Under current law and subject to a number of pre-conditions, libraries (and their staff) may a) reproduce and distribute one copy of an unpublished work in their collection *in facsimile form* for preservation or research, b) reproduce *in facsimile form* one copy of a published work to replace a damaged, deteriorated, lost or stolen copy, which is not available at a fair price, and c) reproduce and distribute one copy of an article from a library collection to a qualified researcher, or an entire work when it is determined that the work cannot be acquired at a fair price.

   The Report's recommendations would allow libraries to prepare *three copies of works in digital form for preservation purposes* (only one of which could be publicly used). It would also recognize that copyright notice is no longer mandatory.

   The Working Group also discusses interlibrary loan and recognizes the need for institutions to allow reasonable, shared access to copyrighted works. In instances where the fair use doctrine or other exemptions apply, that access may be for no fee, even when borrowing is of the electronic version of a work. But because it believes there is questionable applicability to electronic transactions of CONTU guidelines (which clarify Section 108(g)(2) and provide guidance on the number of copies a library may request through interlibrary loans), the Report urges copyright owners to develop "special, institutional licenses" for schools and libraries as they do in the print domain to facilitate public access.

   Comment. Unfortunately, the White Paper hedges on the rights of libraries to engage in the real-world use of digital works; namely, their ability to permit digitally acquired (or created) copies to be sufficiently available to the public for research, scholarship and criticism. For example, in the proposed amendment, the Working Group would specifically modify Section 108(b) to permit the making of a *facsimile or digital* copy of any unpublished work for preservation, but it would allow only a *facsimile* copy for deposit for researchers.

   For the educational and library community, the sobering message of the Report is this:

   > *As long as the commercial marketplace has established a metered, encrypted system for access, the ability of libraries to serve a public mission, which allows for* no fee *access to published and unpublished works, may be diminished.*

3. Establish a new exemption for non-profit organizations to reproduce and distribute works to the visually impaired, at cost, provided that the copyright owner has not entered that market during a period of at least one year after first publication.

   Comment. If the works are made available commercially by the copyright owner within one year of initial publication, this right would be negated. In other words, unless the copyright owner authorizes

preparation of these works for the visually impaired, the benefits of access could be delayed at least one year until the copyright owner's plans become known.

4. Prohibit the importation, manufacture or distribution of any device or product, or the provision of any service, the primary purpose or effect of which is to defeat anti-copy devices or technology, or to violate the rights of copyright owners.

   Comment. This provision would restrict the creation and sale of equipment intended to defeat technology which protects copyright owner rights. However, it could generate controversy when applied to certain technology which may have multiple uses, e.g. is a VCR a device to duplicate copyrighted films or to play original videos. Fair use allows some copying without permission of the copyright owner; however, provisions of the sort proposed by the Working Group would discourage the manufacturer of such equipment from the start.

   The Report also recommends criminalization of the mere "offer" or "perform[ance]" of "any service, the primary purpose of effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent" technology which is intended to inhibit copyright violations. The troubling aspect of the proposed language is that it does not distinguish exemptions or fair uses from outright violations. The nature and scope of "the offer or performance of any service" is vague and could place libraries or educational institutions at criminal risk if they acquire and use equipment with multi-purpose capabilities or attempt novel exercise of their statutory exemptions.

5. Prohibit the dissemination of copyright management information which is known to be false or the removal or alteration of such information.

   Comment. Although the Copyright Act no longer requires copyright notice to secure rights in the United States (a requirement of our joining the Berne Convention), the White Paper foresees the imbedding of copyright ownership information within the digital code as an important tool to protect copyright rights. Tampering with that information would be made a crime. For libraries, the capacity to access source materials is an important cataloging function and the creation of this information could enhance the researcher's ability to authenticate works.

6. Establish a public performance right for sound recordings. Pending legislation would accomplish this to a limited extent and the Report endorses the legislation, although its authors recommend *full* performance rights for owners of sound recordings.

   Comment. While the creators of songs and lyrics and their publishers have enjoyed all copyright rights of Section 106, owners of sound recordings (masters from which records, tapes and CDs are made) have enjoyed limited rights, and most particularly are not entitled to the rights of public performance and public display. First protected in 1972 to prevent tape duplication or record piracy, the key issue for sound recordings has been the absence of a "performance right." Pending legislation would grant the performance right (the ability to collect royalties for broadcasting or other transmissions of recordings) for some digital works. The Working Group would prefer to see the right extended to all recordings, not just digital works.

   Again, for libraries and educational institutions, the expansion of any right means that unless use is exempted or covered by fair use, there is greater exposure to a claim of infringement. Any library or educational institution which pays performance societies today for use of music on records, tapes or CDs, could face cost increases if the sound recording owners' rights are enlarged.

7. Establish a criminal copyright violation when works with retail value of $5,000 are willfully reproduced or copied without permission.

   Comment. By establishing a $5,000 threshold, the intent of this provision would be to criminalize larger scale distribution of computer programs or copyrighted works, not incidental, individual exploitation. The panel was particularly concerned that one defendant who made Internet distribution of computer programs, even though such distribution was not for commercial gain, escaped criminal liability. This provision would change that result. It does not matter that the defendant did not make a profit. As long as the aggregate value of the works exceeded $5,000, the criminal sanctions would apply.

B. Role of Technology

The Working Group expresses confidence in the marketplace to develop strong protections against infringements. There is an extensive discussion of technological solutions at the server levels, by encryption, digital signatures and steganography ("digital watermarking"). It rejects statutory licensing schemes and argues strongly for creative licensing in the on-line environment. To facilitate licensing, the Report suggests that the Uniform Commercial Code (U.C.C.) should expressly recognize the validity of agreements entered on-line or electronically.

Comment. The Working Group's faith in technology poses a dilemma for educational institutions and libraries. To the extent that the commercial owners control transmissions of works as a public distribution,

copy or display, and are encouraged to develop and employ technological envelopes to restrict unauthorized, non-compensated access to works, those in the public sector that wish enhanced access to copyrighted works may be stymied. As long as a paid mechanism for access exists, the commercial vendors may challenge fair use claims.

Moreover, merely opening a technologically sealed envelope may be a copyright violation. However, that is not the law. Fair use, which is a defense to a claim of infringement, allows that notwithstanding the exclusive grant of copyright to creators of works, use may be made of a work without the copyright owner's express consent (e.g. no fee use). Fair use fulfills certain statutory goals, including serving education, comment, criticism, scholarship, teaching and the like. The criteria at the heart of a fair use analysis are: the nature of the use (commercial or non-commercial), the nature of the work, the substantiality of the portion used as a percent of the whole, and the impact of the use on the marketplace value of the original.

It is important to understand that these are criteria — tools of analysis — not absolute standards. The fair use analysis is "fact driven." This means that how works are acquired may also be reviewed; however, merely because a work is sealed technologically does not mean that work is *not* subject to fair use. Otherwise, all a copyright owner would have to do is place figurative fence around a work and warn the public NO USE is allowed without express permission and compensation. That result would negate the statutory doctrine.

In sum, if the Report's thorough embrace of technology as an answer to digital copying and distribution takes hold, applying the fair use doctrine and the policies behind the library and educational exemptions would become more difficult.

C. International Considerations

The Report frankly acknowledges the importance of intellectual property to international trade and places the debate in an international context. The GII is developing as fast as the NII, and the exposure of copyrighted works to infringement internationally is perhaps a greater threat than domestically. The Commerce Department makes no pretense in suggesting that the United States is taking the lead in the development of standards for the information infrastructure and will look to modifying international conventions along the lines proposed in the White Paper.

Comment. Internationally, the Working Group sees harmonization as a theme, with the goal of bridging differences between common law and civil law systems. However, its perspective is set forth in its discussion of "moral rights," the European principal that independent of economic interests there are rights of personality in works which individuals may assert (e.g. "paternity" or right of authorship and "integrity" the right to prevent material changes which harm one's reputation).

Even though "moral rights" are embodied in the Berne Treaty, the pre-eminent international copyright convention, and even though when the United States acceded to the convention in 1988 the U.S. Congress found that U.S. laws had sufficient legal protection of moral rights interest to support ratification of the Treaty, the White Paper questions the constitutionality of moral rights. The effort at harmony will be to move foreign copyright laws and treaties closer to the U.S. commercial model.

D. Fair Use

The Working Group convened a Conference on Fair Use ("CONFU") and has continued to support discussion groups on this central issue. The work of CONFU is to focus on achieving voluntary agreements respecting the definition of fair use in the digital environment, especially for educational and library purposes.

Comment. Throughout the Report, the Working Group acknowledges that while policy considerations could drive a regulatory or legislative solution, it will await the results of CONFU, before articulating its position. To the extent that interested groups can reach accord and establish workable guidelines, that would minimize the need for fair use copyright reform. However, the treatment of fair use is incomplete. The references to the doctrine as being a "murky" limitation, to metering as a way of tracking use, and to the *Texaco* case, which found liability by a commercial researcher where copies were available at "reasonable cost" through the Copyright Clearance Center, suggests an interest in contracting fair use. Libraries and educational institutions should be very attentive to these discussions and watchful over any effort to diminish fair use.

E. On-Line Technology

The Report contains numerous discussions of the impact of copyright and related legal principles on the evolving on-line/Internet environment. The Working Group's most fundamental conclusion is that it is premature to relieve those who use the NII to transmit information (e.g. bulletin board and on-line services) of legal responsibility for the transmissions on their network.

Comment. While some courts have split on the issue of service provider liability for copyright infringement, libel and other legal offenses and calls for legal reform have been heard, the Working Group does not agree. It believes the service provider should be responsible and that it is in the most practical position to correct abuses. The meaning of this principle for educational institutions is not at all clear; however, it must be assumed that if educators and libraries offer large amounts of materials on-line, under this standard they could be held legally responsible for all that content.

F. First Sale Doctrine.

In the preliminary draft of this Report, the so-called "Green Paper," the Working Group proposed a change in the "first sale doctrine." This copyright doctrine acknowledges that the physical copy of a work is different from its copyright and that the copyright owner should not prevent redistribution of lawfully acquired copies. In other words, when one purchases a book, he "owns" that copy, even though one does not own the copyright to the work. Under the first sale doctrine, the copyright owner is given very substantial freedom to choose the first medium of sale of a work; however, once the work is publicly distributed, anyone who acquires a lawful copy is free to sell, give or otherwise dispose of that copy.

Reconciling the first sale doctrine to the issues of transmissions was the subject of the Green Paper proposal. In that case, the Working Group proposed to exempt disposing of a copy *by transmission* from the first sale doctrine. In the White Paper, the Working Group has retreated from the recommendation that first sale provision of the Copyright Act be amended. Rather, it discusses the doctrine as it applies in practice and concludes that there are sufficient safeguards for owners under the rights of reproduction, distribution and display (including specific language limiting the doctrine as it relates to computer programs and sound recordings) so that no change is required.

Comment. The retreat on the change to the first sale doctrine is not as dramatic as might appear at first blush. In the text of the Report, the Working Group establishes several legal theories under current law that suggest transmissions of works would violate copyright rights of owners, despite the protective shell of the first sale doctrine. Of special importance to libraries is that matter of how to display works lawfully acquired and dispose of them to others without running afoul of the doctrine. The most restrictive interpretation, that only one copy might be displayed at a given time and if a work were transferred from a computer to a computer, the first computer owner would have to erase the work in the hand-off, leaves the library community with limited room to maneuver in the digital world.

G. Related Areas of the Law

The Report reviews patent, trademark and trade secret law. Although it makes no recommendations for changes of these related areas of intellectual property law, it acknowledges that the NII will have an important impact. For example, since the NII will make much more information publicly available, it could trigger reassessment of patent grants, which are dependent upon review of publicly available data (so-called "prior art").

With regard to trademark law, the Report acknowledges there may be increased potential for international conflicts over domain names. The current national system may yield overlapping disputes over name ownership and use. Further, the Working Group encourages changes in the international classification scheme to ensure the status of goods and services for information technology.

Trade secret law operates on a common law or state statutory system, not a federal basis. The most direct impact of the NII on this body of law will be the capacity of those concerned with trade secrets to utilize the NII as a secure means of communication.

H. Summary and Conclusions

After almost two years of consideration and hearings, the Report of the Working Group is one of the most comprehensive assessments of legal issues and on-line/digital technology. While its legal initiatives appear modest, the core thrust of the Report is far-reaching. It posits the thesis that copyright is an economic right of owners to be exploited. In its view, the copyright law as a code of regulation should facilitate economic exploitation of works which is in the commercial interests of the United States and its citizenry. It defines copyright law as a flexible statute which needs only minor, definitional tinkering to greet the digital era.

Although the Report makes some positive recommendations to enhance the capacity of libraries to copy certain works in a digital format, the broader impact of the Report should not be lost. Since the pervasive theme of the recommendations is enhancement of the economic exploitation of copyrighted works, less heed is paid to the public interest aspects of copyright law or established exceptions to copyright rights.

There is also a strong article of faith that technology can solve current problems, through the wizardry of encryption, digital signatures, steganography and the like. The weakest part of the Report is its assessment of the relationship of fair use to digital use. The Working Group will await the recommendations of CONFU before tackling this thorny question.

— This executive summary is available at http://sunsite.berkeley.edu/Copyright/analysis.html.

— The IITF Report, *Intellectual Property in the National Information Infrastructure*, is available on the World Wide Web at http://www.uspto.gov/web/ipnii.

— Single copies of the Report are available from:
Terri Southwick
Office of Legislative and International Affairs
U.S. Patent and Trademark Office
Box 4
Washington, DC 20231

EUROPEAN COMMUNITIES ADDRESS DIGITAL COPYRIGHT

Last July the Commission of the European Communities released a draft of its long-awaited study, *Copyright and Related Rights in the Information Society*, an exploratory document about developing a proper legal framework for copyright in an age of digital technology. It explores several general questions such as the applicability of current laws; and specific rights, such as reproduction rights, the concept of "public" rights, the issue of moral rights, exploitation rights, and the study of specific rights that might be applicable to different types of digital transmission. In general, the document advocates a conservative approach to altering copyright law. It does propose, however, to distinguish a right of digital dissemination and a right of digital broadcasting.

The European Green Paper is part of a process of consultation, and interested parties were asked to comment on the numerous questions identified in the report to the Directorate-General XV, Unit XV/E-4, Rue de la Loi-Wetstraat 200, B-1049 Brussels, Belgium (email: E4@DG15.cec.be).

— The report is available from:
The Office for Official Publications of the European Commission L-2985 Luxembourg (Catalogue Number: CB-CO-95-421-EN-C; ISBN: 92-77-92580-9; COM (95) 382 Final, July 19, 1995)

YALE STUDY OF IMAGING COSTS: SOME EARLY FINDINGS

Preservation microfilming is a technically viable and cost-effective source for digital image conversion. This sentence sums up but does not begin to do justice to the rich findings of Yale University Library's Project Open Book. With many facets and several phases stretching over the past four years, Project Open Book has concentrated for the past year, with the help of funding from the National Endowment for the Humanities, on production-level digital image conversion of the printed text and accompanying materials contained in the brittle books previously preserved on microfilm. A key focus of the present phase is a complex cost study of the conversion process. Paul Conway, head of Yale's preservation department and the principal investigator on the project, prepared the following overview of frequently asked questions about the implications of the study for libraries and archives. More information is available on the World Wide Web at URL: http://www.library.yale.edu/pres/presyale.html.

Key Findings

Q: What are the three most important things you have learned about costs in the past year?

A: First, high quality results are obtainable at a reasonable cost per volume. Second, we now have a meaningful method for examining conversion process costs at a level of detail needed to compare findings and, eventually, reduce costs. Third, I am very excited about what we have learned about the role of people in the process, especially learning curves.

Q: What is the bottom line for libraries?

A: The total per-volume cost of equipment and processing is less important than understanding a model for getting this figure, but I'll tell you about the dollars anyway. Table 1 summarizes the overall costs per volume and per image for the four major components of the technology system and the four major steps of the complex image conversion process. Not included in the $55.03 figure is Yale's administrative and physical overhead.

Q: How confident are you of these figures?

A: There is at least one assumption underlying each of these numbers and all of them will be described in the report on the project. The equipment figures are based upon Yale's actual costs for the project and are probably high. The process costs are quite solid, both statistically and intuitively.

Data Analysis

Q: How did you get your process data and then analyze it?

A: Project staff recorded the time it took, in minutes, to complete each of ten processing steps for all 2,000 volumes converted in the past year. Corroborative data from daily work logs validated the accuracy of the volume processing data. Beyond these key numbers, staff also collected information on film and book characteristics for each volume — some 25 variables in all. I applied the usual descriptive statistics to this data along with multiple regression analysis to find the most important factors that influence process time and two-step multiple analysis of co-variance to discover the impact of the learning curve on processing time.

Q: What were your goals in interpreting this mountain of data?

A: As in so many areas of modern life, time equals money. The really interesting issues have to do with why processing times vary and if there is anything we can do about it. On one level, I am interested in identifying the most important characteristics of microfilm, and of the books on the film, that influence processing time and how important these factors are in the overall cost scheme. On another level, I want to be able to separate the characteristics of the input source — microfilm — from the technology and people variables that combine to give us the bottom line.

Future Trends

Q: Last year's ARL preservation statistics show the continuing commitment of most academic research libraries to reformat deteriorating library materials on preservation film. What does your research tell us about books on film?

A: That is a really big question. In essence, the findings on film characteristics, for example reduction ratio, density, clarity, and what I call "technical rigor," have relatively little impact on conversion costs but can make or break digital image quality. The good news in this conclusion is that we can obtain or exceed quality conversion from "poor

film" with only a marginal increase in overall conversion costs of "good film." More significantly, the findings suggest that significant investment in improving the quality of new film will probably not pay off in terms of reduced conversion costs.

Quality Standards

Q: When you speak of "obtaining or exceeding quality conversion," what is your standard for measuring quality?

A: We have followed the lead established by Cornell University's pioneering research on conversion from paper. Anne Kenney and her colleagues have developed a simple but sophisticated "Quality Index" for measuring digital resolution quality. Conversion from preservation microfilm produces acceptable to outstanding quality images for printed books without illustrations or graphics that are essential to understanding the text. Half-tones present significant quality challenges when scanned in binary mode from microfilm. Gray-scale technology or special enhancement routines produce better results.

Q: If technical film quality itself has relatively little influence on overall conversion costs, what role does the character of the original books on the film play in the cost equation?

A: Quite a big one. Book characteristics like tight gutters, yellowed or faded paper and inks, and similar factors associated with deterioration, damage, or heavy use, tend to increase the costs of most of the processing steps. There is very little we can or should do about this fact, however, because our preservation imperative should not control our digital image selection processes. The findings will allow us to predict the incremental increases in cost required to digitize "difficult books" in comparison to "easy books."

Cost Projections

Q: So far you have suggested that there is very little we can do to contain or reduce conversion costs by changing the nature of books or film. Are there other areas that hold greater promise?

A: Most definitely. Technology costs are declining and there is significant "folk knowledge" in the field that helps us predict the rate of decline. Another source of my optimism about costs is the tremendous importance that people have in mastering and then simplifying the process. Table 2 shows just how dramatic is the impact of training and practice on processing costs. This table compares the average processing times (and costs) of a 600-volume sample with the costs of the process for the first and last 50 volumes in the sample. The important thing to know about these findings is that they control, statistically, for all of the film and book characteristics noted in study, as well as varying sizes of volumes converted. What's left is the improvements in staff efficiency, including simplifying the conversion process itself.

Q: Setting aside all the numbers and statistics, what is the key message of Project Open Book for library administrators?

Table 1
Cost of Microfilm to Digital Conversion

	Per Book	Per Image
Equipment		
Hardware	$22.86	$0.105
Software	$5.20	$0.024
Integration Support	$1.16	$0.006
Optical Media	$2.10	$0.010
Subtotal Equipment	$31.32	$0.145
Processing Costs		
Inspection	$1.36	$0.006
Scanning	$9.77	$0.045
Indexing	$7.66	$0.035
Acceptance	$4.92	$0.023
Subtotal Processing	$23.71	$0.109
Total Costs	**$55.03**	**$0.254**

Table 2
Practice Effect for Digital Image Conversion Processes

Process	Sample Mean		Least Square Mean		Least Square Mean	
	Total Sample		First 50		Last 50	
Inspect	5.3	$1.36	5.2	$1.33	4.6	$1.17
Scan	38.1	$9.77	37.8	$9.68	21.1	$5.41
Index	29.9	$7.66	32.2	$8.25	16.1	$4.13
Accept	19.2	$4.92	18.0	$4.61	15.5	$3.97
Total	**92.5**	**$23.71**	**93.2**	**$23.88**	**57.3**	**$14.68**

A: Microfilm is an excellent, but by no means universally appropriate, source for digital conversion. The findings of Project Open Book should be replicated and also placed side-by-side with similar studies of the costs of converting paper to digital images. I anticipate that the findings emerging from a companion research project at Cornell will help us sort out the "film first/scan first" debate.

Library/Institutional Responsibility

Q: Should libraries assume responsibility for digital image conversion?

A: This is an impossible question to answer without knowing more about the level of institutional commitment to maintain access to the digital files for as long as they have use and value for scholarship and learning. I remain quite optimistic that the advantages of digital conversion will help us find a political and economic consensus on our responsibilities for digital preservation. Project Open Book has demonstrated for a single input source, microfilm, that digital conversion may be relatively affordable as a part of a comprehensive preservation and access strategy. Much work needs to be done to verify and extend the findings to other media and other contexts.

Guest Editor, Ann Okerson, Associate University Librarian for Collection Development and Management, Yale University

LIBRARY MATERIALS BUDGET SURVEY: SOURCE OF FUNDS AND NEW COMMITMENTS

by Robert G. Sewell, Associate University Librarian for Collection Development and Management, Rutgers University Libraries

Research library materials budgets are undergoing stress for a variety of reasons: inflation, cutbacks, new academic programs and fields of study, and new formats (in particular electronic resources). The budgetary process is changing, as is the definition of "library materials" and what is to be covered by the library materials budget. The central problem is that the serials crisis continues as the demand for electronic resources grows.

Rather than focus specifically on print vs. electronic or access vs. ownership, this survey sought to discover how academic libraries are coping with these problems by identifying basic budgetary processes, the sources of additional/new funding (if any) to compensate for inflation of traditional materials as well as for new institutional commitments, and how budgets are being reallocated to cover these new costs. The results of the survey show the extent to which the library materials budget is being "reconceptualized" in the face of new pressures, new realities (virtual or not).

A QuickSPEC survey was sent to ARL member libraries in the spring of 1995. Seventy-three surveys were returned, representing a return rate of 67.6%. The results are summarized below.

A fundamental question is just how the base allocation of the annual budget is established. Of the total, 41.1% of the respondents indicated that the materials budget comes to the library distinct from the main library budget. Another 34.2% said the library administration determined the materials budget from the total library allocation. Of the remander, 16.4% reported both processes were involved and 8.2% indicate some other process determined the materials budget. An assumption can be made that if the materials budget is handled separately from the rest of the library budget, there is a recognition by the budgeting authority of the special problems associated with the prices of library materials: they vary greatly from year to year and they always increase. Comments elaborating on this question specified that the materials budget is determined by a University Budget Committee or the University Administration, is appropriated by State governmental agencies, or that a "line increase for materials" is identified in an allocation letter from the university administration.

Since prices for library materials increase every year, increases to the base budget are required if a library hopes to keep up with scholarly publishing. Just over half of the respondents (50.7%) reported annual increases within the last five years. Of the rest, 38.4% indicated base increases less regularly (between one and four times) within the last five years and 11% have had no increase in the last five years.

Most responding libraries, 80.8%, have received supplements to the base budget during the same time frame, while 19.2% have not. The sources of these supplements are primarily from gifts and endowments but also include indirect costs recovery (ICR) from university grants, direct grants, transfers from academic departments, computer fees, library fines, salary savings, book sales, "special purpose funds" from state legislatures, university "year-end" monies, and funds from regional library consortia.

On average, the respondents indicated that 88.3% of their annual materials budget came from their base allocation and the average base budget was $4,199,801. One library reported that its base budget represented only 37.5% of their annual expenditures. Gifts and endowments on average represent only 6.8% of material budget expenditures, while one library indicated that they make up 36% of its expenditures. The average amount from these resources was $422,135; one library reported annual gift and endowments expenditures of $4,059,000. The average amount from other sources (ICR funds, transfers from academic departments, university "year-end" monies, etc.) averaged 6% of the budget or $286,838; some received no money from these sources and one received $1,405,000 from them.

In addition to the problems of price increases, new commitments that strain materials budgets include new academic programs and materials in new formats, especially electronic resources.

Of the respondents, 67.1% reported that while new academic programs have been established within the last five years, no specific increases were received to support them. Another 27.4% indicated additional funds were provided for some but not all of the new programs. The remaining 2.7% reported no new programs have been established. The primary way libraries have acquired materials for new academic programs has been through reallocation of the existing budget. When additional funding was provided, the central university administration (13.7%) and/or academic departments (11%) were the sources. The apparently wide-spread practice of not providing additional funding to support new academic programs indicates a lack of recognition or acceptance within the university that there are library

costs associated with new academic programs, especially for graduate programs.

New electronic resources have also been funded primarily through reallocation of the materials budget or from the operating budget. Many indicated that one-time, start-up funding was provided by the central university administration, other academic divisions, and state legislatures, but on-going funding was supported through reallocation. Some libraries reported sources for on-going support from gifts and endowments (15.1%), salary savings, and student computer fees.

As libraries have had to cut back on their purchases of library materials, they have sustained access to material available elsewhere through traditional interlibrary loan with other libraries and through commercial document delivery sources. The costs associated with traditional, non-commercial interlibrary loan have been covered by and shared among the ILL budget (54.8%), the materials budget (46.6%), patron's fee (32.9%) and other sources such as state and regional consortia and photoduplication proceeds. Just over half of the respondents (50.7%) reported that commercial document delivery services have been funded from the materials budget along with patron's fees (38.4%) and their ILL budgets (34.2%).

General Observations

About half of the libraries responding reported annual increases to their base budgets. Those with annual base increases apparently have university recognition of the need for on-going commitments to library materials. This provides libraries with a degree of flexibility to deal with regular price increases, new academic programs, and the acquisition of electronic resources, even though such increases to the base budgets have generally not been specifically designated for the last two categories. However, even for those libraries with annual increases, such increases are, for the majority, inadequate to keep up with inflation alone.

Slightly less than half of the respondents did not receive annual increases. Supplementary funding, most often one-time and inconsistent, was reported by 80% of these libraries. While such funding is essential, dependence on supplementary funds makes it difficult for long-term planning. With the multiplication of formats, some of which will be replacements for and others complimentary to traditional publication formats, and the development of new academic methods of inquiry, a transition is taking place that is complex to manage even with adequate resources. To date, research libraries have responded to these circumstances primarily through reallocation of existing resources that have been diminished by new commitments and price increases, acquisition of new revenue from student and other user fees, and the creative allocation of temporary funding.

D-Lib Magazine: The Magazine of the Digital Library Forum

In late July, the Digital Library Forum announced *D-Lib Magazine*, an online magazine, which offers a broad range of technical and professional users opportunities to browse, access, and comment on current work in digital library research, advanced development, and implementation. The magazine has been created by the Corporation for National Research Initiatives (CNRI) on behalf of the Information Infrastructure Technology and Applications (IITA) task group of the High Performance Computing and Communications (HPCC) program.

The purpose of *D-Lib Magazine* is to nurture and facilitate communication among the many agencies, organizations, institutions, and individuals participating or interested in digital library research and its eventual application. The magazine disseminates descriptions of current research and implementation projects and provides for interaction with the community through announcements and communications to the editor. One section of the magazine is devoted to pointers, which are used throughout research stories and briefings as another means of furthering interaction among users and disseminating important information.

The magazine is itself an experiment in electronic publishing. The Forum plans no — and proposes no — print analogue, and the editors will be most intrigued by substantive articles that take advantage of the power of hypermedia while retaining the strengths of traditional print publishing. In addition, *D-Lib Magazine* will be used as a testbed for new methods of electronic publishing and techniques of digital librarianship. So these experiments will not prove a barrier to users with slow network connections or less than the latest technologies, the magazine will be issued in standard and advanced versions.

D-Lib Magazine can be found at
http://www.cnri.reston.va.us/home/dlib.html.

Editor: Amy Friedlander
Email address: dlib@cnri.reston.va.us

THE INTERNET: NEXT STEPS IN THE EVOLUTION

by Richard P. West, Vice Chancellor, Business and Finance, California State University, Chancellor's Office and Chair, CNI Steering Committee

The "network" was a given when the Coalition for Networked Information was formed over five years ago. The Internet, used primarily by the higher education community and to a lesser extent by the federal government, had matured to the point that "content" deserved attention separate and distinct from the network per se. The underlying infrastructure that the CNI program relies upon continues to get a lot of attention in the national media and in Congress. CNI has a keen interest in the spirit and results of these discussions, not only because they are important in their own right, but because deciding what's good for promoting the development of network conduit versus what's good for network content is not a simple matter. Let's review the current status of the network.

Reforming the Telecom Industry

Most Congressional policy discussions don't start with the idea of legislating Internet-related activities. Rather, the government is trying to enact a legislative reform of the telecommunications industry in response to the revolutionary technological and marketplace changes that started in the early 1980s with the break-up of AT&T. This break-up is often remembered as the "deregulation" of the telephone industry in the U.S., but it was actually a mandated "divestiture" by AT&T of its regional and local operating companies to create a more competitive marketplace for long-distance services and to allow AT&T to enter the market for computer systems and services. Although often used synonymously, "deregulation" and "divestiture" actually describe quite different processes and outcomes. Much of the current debate seems at cross-purposes because different parties place different priorities on "market structure" (i.e., who participates in what sectors of the market under what rules) versus "market functions" (i.e., the national as well as individual purposes to be served by the market and by what means). The Internet has been swept into this debate, and decisions arising from it will influence how the Internet will grow and be managed for years to come.

The long-distance phone service market has been a competitive one for a number of years now, although only three or four firms dominate that market. Also, one of those, AT&T, is very much larger than the others. This is definitely a situation in which divestiture has led to competition, but how much competition makes for a "competitive market" worthy of the name? Certainly some of the expected benefits of a competitive environment (e.g., lower prices and constantly improving technology and quality) are now present in the long-distance voice and data services marketplace. However, a market with only a few large providers cannot be considered a highly competitive one, and the market for local phone service is not competitive at all. So, two of the major targets of the current legislative reform effort are how to generate still more competition in the long-distance sector, and how to generate competition for the first time (since the very earliest days of telephony, that is) in the local one.

Changing technology and, more precisely, the integrating effect of digital technologies is the second, profoundly confusing, target of current federal and state telecommunications legislative reform efforts. Many, perhaps even most, services and functions that can now be provided over an integrated digital network have traditionally required their own delivery networks, often provided by entirely different firms. Voice, data, and video delivery systems have generally been built and regulated separately, and have also been subject to different industry practices and customer and government expectations. Parts of some of the resulting distribution systems are regulated, while others are not.

A "uniform code" (also known as the "level playing field") for all telecommunications services, functions, and delivery systems is the ultimate goal of legislative and regulatory reform efforts, but it has proven to be very difficult to describe, let alone achieve. This is particularly so in light of the companion goal of wanting to increase competition, as the various "do's and don'ts" of the uniform code are often viewed and portrayed as pro- or anti- the competitive interests of individual players and sectors, and there is no commonly accepted definition of what measures will produce "more competition" in the market as a whole.

Rapid and significant technological change is no stranger to the Internet; indeed, some of us think it defines the Internet, especially relative to other telecommunication delivery systems. Further, competition has become a central feature of the Internet community's life, as we have learned to operate in a world with many long-distance providers rather than the single one that NSFNet represented until earlier this year.

Legislating the Internet

Unfortunately, throughout most of 1995 the only aspect of the Internet that has drawn the attention of the popular media and members of Congress is the existence of pornography, among other objectionable materials and behaviors. This attention is unfortunate not only because it eclipses the real lessons that the Internet

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experience can bring to the broader telecommunications reform debate, but because proposals arising from this attention seek to prohibit the "availability" rather than to manage the "accessibility" of certain networked resources and services. In so doing, they represent over-reactions that would not only constrain expression within consenting Internet-user communities, but would preempt, rather than assist, traditional roles and responsibilities of parents and teachers in favor of government-imposed, national standards.

CNI promotes the view that technical rather than legal measures are the way to address objectionable materials and behaviors in networked environments and that the nation will be much better served by a vibrant, competitive, customer-oriented market for such technical measures than by years of litigation and adjudication regarding what materials and behaviors are and are not objectionable before the law.

The presence of the new, ubiquitous, integrated digital delivery system is essential, and all efforts should be focused on means that assure proper management and coordination of the dispersed Internet. Encouraging the rapid evolution of a National Information Infrastructure (NII) on the model of the Internet should be higher education's overwhelming priority.

Encouraging the Evolution of the NII

The presence of the new, ubiquitous, integrated digital delivery system is essential, and all efforts should be focused on means that assure proper management and coordination of the dispersed Internet. Encouraging the rapid evolution of a National Information Infrastructure (NII) on the model of the Internet should be higher education's overwhelming priority.

Unless we are very careful and diligent, CNI's assumption that the network will take care of itself will be proven wrong, and the sorts of content-rich resources and services that have been CNI's primary focus will prove to be impossible or too expensive for higher education.

Note: This column is adapted with permission from an article in *CAUSE/EFFECT* Fall 1995.

Monterey Conference

Higher Education and the NII - From Vision to Reality was the topic of a conference held in Monterey, California on September 26-29, co-sponsored by ALA, ARL, CREN, Computing Research Association, CASC, CAUSE, CNI, Educom, FARNET, and IEEE/USA. Representatives of the higher education community were invited to attend the conference and assist with identifying and debating the networking and networked information issues that will be of priority concern to higher education institutions and their sponsoring agencies and partners over the next several years. Attendees joined one of three working groups on scholarly communication and publishing, networked applications, and broadband network technologies to agree upon benefits being sought from networking and networked information, to identify obstacles to and enablers of progress toward those benefits, and to formulate strategies and recommendations.

Paul Evan Peters, Executive Director of CNI, was the leader for the scholarly communication and publishing track. Among the benefits of networking and networked information the group identified were:

- Wider and more timely access to people and knowledge
- More productive communication and publication system
- New genres of communication and publication
- New, cross-disciplinary, global knowledge communities
- Coherent, responsive environment for life-long learning

They identified the following obstacles/enablers:

- Technological infrastructure
- Culture, and inertia of existing human systems
- Intellectual property, security, and privacy regimes
- Different, divergent, and poorly articulated expectations
- Early networked information environment

They identified the following strategies for realizing the potential of networks and networked information:

- Harden and expand the technological infrastructure
- Harmonize and innovate the intellectual property system
- Address human, social, and economic factors
- Address long-term preservation and access challenges
- Link higher education vision to others, in a global context

The proceedings from this conference will be available early next year and will be used for a variety of agenda setting and education purposes in the months ahead.

– Joan Lippincott, Assistant Executive Director

FEDERAL RELATIONS

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

TELECOMMUNICATIONS REFORM

For over a decade, Congress has attempted to update the Communications Act of 1934 to reflect the evolving technological and economic changes in the communications infrastructure. In June and in August, the Senate and House passed telecommunications reform legislation that will radically restructure the current regulatory regime that promotes a more competitive marketplace for telecommunications services. H.R.1555 and S.652 fundamentally change how and what services industry will provide and what consumers including libraries may use in the years ahead. A House-Senate conference committee has been appointed to resolve differences between the two bills. If the conference is successful, a bill will be sent to the President for his consideration. Until the conference committee completes its work, it is not clear whether the President will support or veto this legislation.

H.R.1555 and S.652 seek to address cable, telephony, broadcasters, and other service providers' interest, indeed, determination to enter new lines of business due to the convergence of technologies. Key elements of both bills include:

- massive deregulation for differing industries, cable in particular;
- reduced restriction on concentration of media ownership;
- reliance on marketplace solutions to ensure access to current and future telecommunications services; and
- differing approaches to regulation of the Internet with regard to content.

Of particular interest to the library community are those provisions relating to universal service, content restriction, PEG (public, educational, and governmental) access, and anti-redlining.

Universal Service: Whereas the Senate bill defines the principles and goals of universal service, there is less guidance in H.R.1555. Provisions in both bills call for a Joint Federal-State Board to provide recommendations to the Federal Communications Commission (FCC) on universal service. It is important to note that S.652 sees a continuing role for the Board to review the implementation of the definition of universal service. H.R.1555 calls for the abolishment of the Board five years after enactment of the legislation. S.652 includes provisions that would ensure universal service in rural and high cost areas and to those with disabilities.

S.652 also advances several other important principles including preferential rates for schools, libraries, and rural health care facilities. Libraries that are eligible for LSCA Title III funds are entitled to preferential rates (Snowe-Rockefeller-Kerry-Exon amendment). Comparable provisions for libraries and health care providers are not included in the House bill. In addition, the Senate bill explicitly acknowledges that "citizens in rural and high cost areas should have access to the benefits of advanced telecommunications and information services for health care, education, and economic development, and other public purposes."

Content Restriction: With a vote of 64-18, the Senate signaled its strong support for the imposition of content restrictions on the Internet and other interactive media. An amendment to S.652 (Exon) would prohibit access to sexually explicit materials via the Internet and would impose fines and penalties for transmitting obscenity and pornography via advanced telecommunications services. Countering the Senate action, the House bill would prohibit the FCC from imposing content regulations on the Internet or other interactive media (Cox-Wyden). H.R.1555 would also remove liability for service providers who make good faith efforts to restrict minors' access to obscene or indecent materials. There remains some problematic restrictions with regard to criminal penalties.

PEG Access: The House bill recognizes in a favorable light, "capacity, services, facilities, and equipment for public, educational, and governmental use." S.652 takes a different approach and requires that PEG stations not be charged at fees higher than incremental cost-based rates of carriage for access to the video platform service.

Anti-redlining: These provisions are of interest to institutions in a rural or high-cost area and thus could have implications for those providing distance education services and related services. Whereas the Senate includes a more broadly-based provision that prohibits a service provider from denying a service based on location, the House bill applies only to those industries providing video platform.

ARL is actively working in support of the Snowe-Rockefeller-Kerry-Exon amendment and for changes to the Exon, Cox-Wyden provisions. Additional information on this important piece of legislation is available in *ALAWON: ALA Washington Office Newsline*, volume 4, no. 89, October 24, 1995 (alawash@alawash.org).

NEH LIBRARY PROGRAMS HAVE NEW DEADLINE

The National Endowment for the Humanities Office of Library Programs has announced that there will be only one deadline this year for library programs — January 12, 1996. For further information contact Patty Frinzi at (202) 606-8271.

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KATHRYN DEISS JOINS OMS

Welcome to Chicago-based Kathryn Deiss who joined ARL full-time as the OMS Program Officer for Training on May 1, 1995. Kathryn brings with her a solid background of experience and a driving enthusiasm for the creation and delivery of high quality learning experiences for our library colleagues.

Kathryn is not a new face here at ARL. Working as an adjunct OMS faculty member for the past several years, Kathryn co-designed the OMS *Women in Library Leadership Training Institute* and the ARL/OMS *Redesigning Interlibrary Loan & Document Delivery Institute* in addition to facilitating many of the OMS Training Institutes. Her main interests are: leadership development; continual improvement of library services through creative innovation; and group dynamics and human relations in changing work environments.

Kathryn Deiss, OMS Program Officer for Training

Kathryn's energy and commitment stem from over 17 years of broad experience in public, special, and academic libraries. She was most recently employed at Northwestern University where she was the Head of Interlibrary Loan. In that capacity Kathryn assumed a leadership role in the Committee on Institutional Cooperation by serving on the Virtual Electronic Library Project Steering Committee. Previously, she worked at the Metropolitan Museum of Art, Thomas J. Watson Library as Serials and Auction Catalog Librarian for five years. She has held many elected and appointed positions within LAMA and RASD. Kathryn received her M.L.S. from the State University of New York at Albany.

SPRING 1996 OMS TRAINING INSTITUTES

March 11-13, Chicago, IL
FACILITATION SKILLS INSTITUTE
Participants will learn how to become skilled in-house facilitators who can assume key roles within their work units and other groups to assist in producing better quality team/group results. Topics will include: skills for effective facilitation; group dynamics and group process; facilitative versus controlling leadership; managing meetings; dealing with difficult behaviors in groups; and problem-solving and decision-making methods. Each participant will have an opportunity to practice facilitation skills.
$350 ARL Members, $420 Nonmembers

March 20-22, Baltimore, MD
TRAINING SKILLS INSTITUTE:
MANAGING THE LEARNING PROCESS
This program will follow a five-stage model to prepare participants to design and conduct effective training programs. Participants will learn how to analyze needs, develop learning objectives, design a curriculum, select methods, deliver training, and evaluate outcomes. The program will include a practicum experience.
$400 ARL Members, $475 Nonmembers

April 22-25, San Antonio, TX
LIBRARY MANAGEMENT SKILLS INSTITUTE I: THE MANAGER
This institute will explore and develop a range of concepts and techniques associated with effective management so that the individual will broaden his/her ability to function and to contribute to the organization. The focus will be on the individual and the individual's relationship to the library organization as a whole, including relationships to peers, direct reports, and supervisors. Through feedback tools and learning experiences, participants have an opportunity to reflect on their current approach to managerial and leadership responsibilities.
$490 ARL Members, $550 Nonmembers

May 20-24, Philadelphia, PA
LIBRARY MANAGEMENT SKILLS INSTITUTE II:
THE MANAGEMENT PROCESS
This intensive 5-day program will use a simulated library workplace, in the framework of the learning organization model, to focus on the individual's ability to have a positive influence on the overall performance of the organization. Emphasis will be placed on building and attaining proficiency in the skills of observation, diagnosis and planning so that participants will become more effective in solving organizational problems and in recognizing organizational opportunities.
$695 ARL Members, $745 Nonmembers

For further information and registration, please contact Christine Seebold, OMS Training Program Assistant (cseebold@cni.org).

ARL LIBRARIES ASSUME LEADERSHIP IN DIVERSITY

In implementing the ARL programs for diversity and minority recruitment, ARL's primary goal is to assume a leadership role in advancing diversity

locally, regionally and nationally. This past year has seen this goal expanded and developed into one of the strongest components of the programs.

The ARL/OMS programs focus not only on libraries' responses and initiatives, but also examine ways in which higher education has addressed diversity at the university-wide and departmental levels. This focus on colleges and universities has provided the Program Officer for Diversity and Minority Recruitment, Kriza Jennings, with the opportunity to interview administrators, faculty and students, and to assess and evaluate strategies that have been successful and those that have not met expectations. Ms. Jennings has now conducted site visits at over one hundred institutions.

In the past year, there has been an increased interest by university administrators in ARL's approach and findings on effective strategies for introducing and responding to diversity in the campus community. ARL libraries have found that presentations and seminars for library staff are also of interest to the broader university community. Several ARL libraries have extended invitations to others on their campus and found an enthusiastic response. As a result, the library is able to provide a resource for others who are seeking ways to assess or implement diversity strategies.

Some ARL libraries also use the on-site visit from the ARL Program Officer as an opportunity to share information with the local library community and library schools in the area. Site visits have also been coordinated with state library conferences, enabling an even larger number of librarians to learn of ARL's efforts and findings.

What began in 1992 as half-day or one-day visits now has expanded into two- and three-day campus visits. Shared funding for the units helps defray the library's contribution to the expenses and fees. If you are interested in arranging a site visit, contact Kriza Jennings (kriza@cni.org) for more information.

Strategic Planning Alive and Well

SPEC Kit 210, *Strategic Planning in ARL Libraries* documents strategic planning as the most common method of planning in member institutions, and, with few exceptions, was deemed successful by both library and university administrators. In almost every case reported to this Kit, respondents initiated strategic planning to resolve the common dilemma facing research libraries today of having to do "more with less." Outcomes of the process are varied but can include the ability to make informed decisions about the allocation of time, personnel, and money; the opportunity to become campus leaders in introducing new information technologies; and the provision of an overall structure in which to set priorities while capitalizing on targets of opportunity. The results further emphasize the need for the support and involvement of library users, university administrators, and all levels of staff to ensure that the process is successful.

This Kit and Flyer were compiled by Richard W. Clement, Associate Special Collections Librarian, University of Kansas.

In commemoration of the 25th anniversary of OMS, this is the first issue in the SPEC Kit series printed in color. The SPEC Kit series began in 1970 and has since worked with its constituents to identify the best practices in research libraries for meeting the needs of users.

Increases in Library Systems Office Staff and Activities Reported

SPEC Kit 211, *Library Systems Office Organization* documents a nearly forty percent overall increase in systems office staff in the last five years due to the exploding interest in the Internet as a means of providing library services. Despite this significant increase in staff through hiring or reorganization, the demand for service is not always satisfied. Other pertinent issues include participation in the library's planning and budgeting process; interdepartmental relationships; computing trends; and the need for continuing education and professional development of systems personnel. Detailed statistical information on the number of positions across various staff categories, systems activities, and titles and reporting relationships as well as organizational charts and position descriptions are included.

Library Systems Office Organization was compiled by Scott Muir, Systems Officer, University of Alabama.

TQM Proceedings Published

OMS announces publication of *Total Quality Management in Academic Libraries: Initial Implementation Efforts, Proceedings of the 1st International Conference on TQM and Academic Libraries.* This Conference was co-sponsored by Wayne State University and the ARL Office of Management Services, with financial support from the Council on Library Resources.

Presentations and papers focus on TQM and higher education; using TQM management and planning tools; benchmarking; initiating and implementing a TQM program; building a continuous improvement climate; and facilitation skills for teams. The keynote address was delivered by Daniel T. Seymour, author of *On Q: Causing Quality in Higher Education.* Seymour, the author of seven books, is a well-known consultant on quality issues and process to both higher education and industry.

The full text of all presentations, papers, and handouts are included in this 348 page book. The Proceedings were edited by Laura Rounds and Michael Matthews.

These publications may be obtained through ARL Publications, Department #0692, Washington, DC 20073-0692, (202) 296-2296, (email: arlhq@cni.org).

— Laura Rounds, OMS Program Officer for Information Services

ARL Activities

G. Jaia Barrett, Deputy Executive Director

Toni Olshen Named Visiting Program Officer To Address Diversity in Canadian Libraries

The Association of Research Libraries (ARL) has named Toni Olshen, Associate University Librarian at York University, Visiting Program Officer with its Diversity Program. Ms. Olshen will concentrate her research on diversity issues in both large academic and public libraries in Canada. From November 1995 through May 1996, she will work with Kriza Jennings, ARL Program Officer for Diversity and Minority Recruitment, to incorporate the Canadian research library perspective into ARL's Diversity Program. She will also work with Ms. Jennings in developing model processes and will learn to lead ARL diversity workshops focusing on Canadian libraries.

Ms. Olshen holds an M.L.S. with honors from the University of Toronto. At York she is actively involved in several activities that fit well with ARL's definition of diversity.

An ARL Visiting Program Officer appointment is made when there is a match between the Association's agenda, the expertise and availability of an individual in an ARL member library, and the support of the member library director. Inquiries about the VPO program may be directed to Jaia Barrett, ARL Deputy Executive Director (jaia@cni.org).

Transitions

Colorado State: Joan Chambers agreed to extend her retirement date to June 30, 1996 to allow additional time for the recruitment of a new Dean of Libraries.

Duke: Robert L. Byrd was named Acting University Librarian effective December 1.

Harvard: Richard DeGennaro will retire from the position as Librarian of Harvard College effective the end of August 1996.

Maryland: Anne McLeod was appointed Acting Director of Libraries effective September 11. She previously served as Professor in the College of Libraries and Information Science.

MIT: Ann J. Wolpert, currently Executive Director of Library and Information Services at Harvard Business School, was named Director of Libraries, effective January, 1996. In the interim, Carol Fleishauer, Associate Librarian for Collection Services was appointed Acting Director; David Ferriero was appointed Co-director.

Rice: David Minter, Professor of English and Master of Jones College, was appointed Interim Director of the Fondren Library.

Rochester: James F. Wyatt announced his plan to retire as Director of Libraries effective during the summer of 1996.

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Southern California: Jerry D. Campbell was named University Librarian and Dean of Libraries effective January 1, 1996.

Temple: James N. Myers became Dean of Temple University Japan effective Setember 4; John G. Zenelis who served as Deputy University Librarian, was appointed Acting University Librarian during Mr. Myers' two year absence.

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ARL: Susan Jurow, Director of the Office of Management Services, was appointed Interim Director of the Office of Scientific and Academic Publishing.

Canadian Association of Research Libraries: Timothy Mark has taken up duties as interim Executive Director of CARL until David McCallum's return in September 1996.

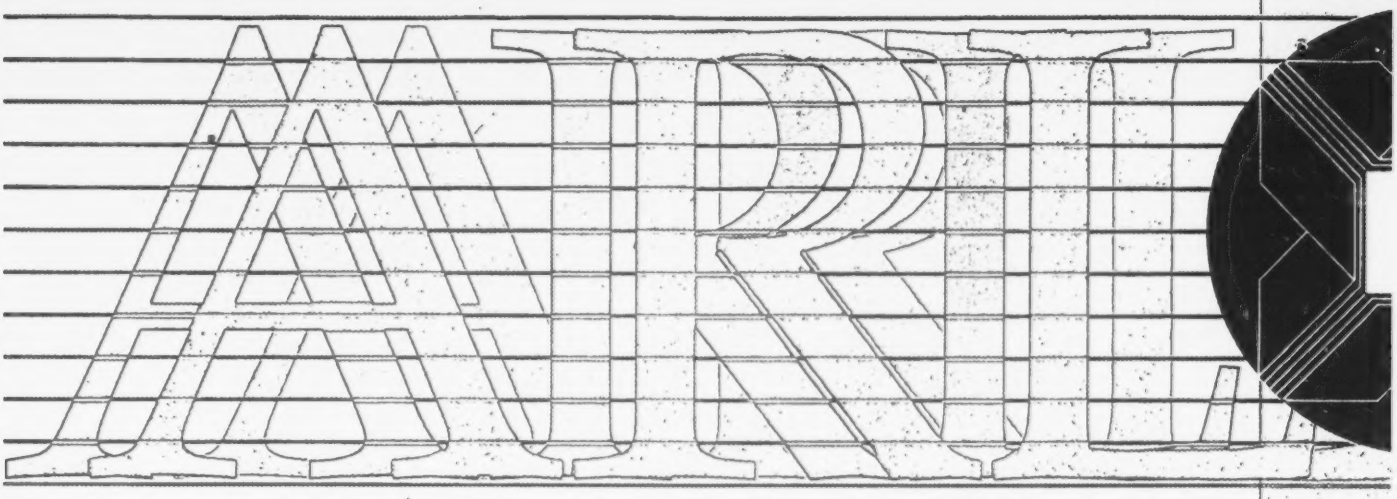
Commission on Preservation and Access: Patricia Battin was appointed Coordinator of the National Digital Library Federation (NDLF) for the next six months; Henry Gladney, a research scientist at IBM's Almaden facility, will provide technical assistance for a nine-month period. M. Stuart Lynn and the Commission agreed to terminate their working relationship; in October, Mr. Lynn was appointed Associate Vice President, Information Resouces and Communications, Office of the President, University of California.

Council on Library Resources: Glenn LaFantasie was appointed Senior Program Officer effective September 11. He was previously historian for the U.S. Department of State. Gail Sonnemann was appointed part time Program Officer. She previously worked at the Library of Congress as Library Automation Specialist on the digital library project.

National Coordinating Committee for Japanese Research Resources: Dorothy Gregor was appointed Director of NCC, effective October 1.

Research Libraries Group: Newly elected to the RLG Board of Directors are Nancy Allen, Director of Information Resources at the Museum of Fine Arts, Boston and Martin Runkle, Director of the University of Chicago Library. Re-elected to the Board were: Paul Mosher, Vice-provost and Director of Libraries, University of Pennsylvania; David Stam, University Librarian, Syracuse University; Edward W. Barry, Oxford University Press/North America; and David Cohen, Vice President of Arts and Sciences, Columbia University.

University of California at Berkeley: Hal R. Varian was named Dean of the new School of Information Management and Systems effective September 1. He was previously Professor of Economics at the University of Michigan and is known internationally as a scholar in economic theory with recent interests in the analysis of information resources.



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CALENDAR 1995-96

November 13-15	National Association of State Universities and Land-Grant Colleges 108th Annual Meeting Lake Buena Vista, FL
November 28-December 1	CAUSE95 Realizing the Potential of Information Resources: Information, Technology, and Services New Orleans, LA
January 19-25	American Library Association San Antonio, TX
February 8-9	**ARL Board Meeting** **Washington, DC**
March 25-26	Coalition for Networked Information Spring Task Force Meeting Washington, DC
May 6-7	U.S. National Library Legislative Day and Briefings Washington, DC
May 14-17	**ARL Board and Membership Meeting** **Vancouver, British Columbia** **Canada**
July 4-10	American Library Association New York, NY
July 29-30	**ARL Board Meeting** **Washington, DC**
August 25-31	International Federation of Library Associations Beijing, China
October 13-16	LITA/LAMA National Conference Pittsburgh, PA
October 15-18	**ARL Board and Membership Meeting** **Washington, DC**

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A BIMONTHLY NEWSLETTER OF RESEARCH LIBRARY ISSUES AND ACTIONS

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Current Issues

THE NEW LIBERAL ARTS

by James J. O'Donnell, Professor of Classical Studies and Director of the Center for the Computer Analysis of Texts, University of Pennsylvania

The following is based on an article of the same title published originally in Ideas, *the magazine of the National Humanities Center, in September 1995. A further discussion in the same vein between Dr. O'Donnell and Sheldon Hackney, Chairman of the National Endowment for the Humanities and former President of the University of Pennsylvania, appeared in* Humanities, *September/October 1995 and on the World Wide Web <URL:http://ccat.sas.upenn.edu/jod/hackney.html>.*

The present state of the humanities can only be understood as a product of the times, chiefly the long generation of constrained budgets and intellectually timid leadership in Academe. The 1960s, about which everyone has a favorite myth and few seem to have any accurate "memories" at all, scared the bejabbers out of academic administrations and left them scrambling to manage budgets suddenly tight to the point of snapping. The strategy of choice has been to concentrate on management and to forego involvement in the intellectual life of the community. Perhaps presidents and provosts fear that if the imputed naturally leftist tendencies of the faculty are given too much attention, the imputed naturally rightist tendencies of trustees and donors would rebel. If so, this strategy has backfired. Faculty, left to theorize without serious engagement in the leadership of the institution, have been self-indulgent in the extreme, and have succeeded in getting themselves called on the carpet by a squadron of journalists and sophists.

It has also been an age of hand-wringing and indecision. When I attend meetings that are called to address one or another "crisis" in our profession, they regularly end with timid observations that we aren't actually doing all that badly and that if we just work together cooperatively, perhaps we can make things a little better. And isn't it awful that people outside say such awful things about us, when we're really such virtuous people?

But a powerful new variable has entered the picture. It is no panacea and it offers no path to a promised land. It changes and will change the economics and the landscape of higher education dramatically. It offers us ways to get beyond our intellectual and institutional dead ends, to demonstrate the irrelevance and futility of our left-right squabbles, to reconnect what we think with what we do, and to suggest a novel future for the humanities.

The sudden invasion of our carefully constructed social awareness by talk of the information superhighway is more than hype. The power of the computer and the network as tools for enhancing our communication with the world around us is nothing short of majestic. In the history of culture, only the introduction of writing itself and of printing technology can be compared with this moment. Determinism is a natural temptation in the face of powerful technology, but a mistaken reading of what actually happens. Put simply, the new technology is very nearly as much a response to newly expressed needs and ambitions as it is a shaper of them. Determinism can be very reassuring, but all we can be sure of is that a tidal wave is coming. Where any individual boat will wind up afterwards is a matter high-

ly susceptible to the application of prudence beforehand and skillful manipulation betimes.

The first reports from the front lines of higher education on the information superhighway are coming in. I've been responsible for a few of them myself and paid close attention to the others. What is unmistakable is that technology does what it always does: provides tools. Those tools may eventually shape their owners, but they are always assuredly instruments with which their owners may pursue their own aims. What will we do on the superhighway? What happens to higher education when every student has a link to a flood of words and images of every imaginable kind from around the world, and when every teacher and every student can reach out to each other at all hours of the day and night? The short answer is that we don't know; we will soon find out; and in so doing we will reinvent pedagogy as we know it.

... the growth of our great libraries over the last century brought the world to our door—historians may yet decide that it was the librarians who invented and have real right of ownership on the information superhighway ...

In many ways we have already reached the place where this transformation will take place. At the University of Pennsylvania, multimedia textbooks, World Wide Web online teaching resources, interactive email between faculty and students and between Penn and the rest of the world, and even such apparent exotica as MOO online conferencing software (where a student from Idaho and a student from Georgia can share a virtual can of soda from a virtual soda machine, and engage in soda machine conversation, before entering a plush virtual "seminar room" for high-level scholarly discourse—all without leaving their desks far from Penn)—all these tools have already become everyday practice for many of us, and we are hard at work exploiting their power (and trying to make sure their power does not overwhelm us). Even where faculty have only started to struggle to use the new technologies, the librarians are already creating balanced information centers that lead the struggle to find a way for print and pixel to coexist for as long as we need and cherish both.

The deepest barrier on our campuses separates the liberal arts from the "pre-professional" schools. No one ever thinks of law or business or accounting or dentistry as "liberal arts". Those who know from the beginning of their university careers that their ambitions lie in these directions are curiously privileged second-class citizens, rather like the "equites" (knights) of old Rome—of lower social standing than the senatorial class, but for the most part quite a bit wealthier. The pre-professional student has the prospect of economic success and the brash American prestige of money, while the student in the arts and sciences is encouraged by her elders and betters to accept a lower economic prospect in return for a more venerable, but perhaps now more threadbare prestige. Venturesome and imaginative humanists will find a way to bridge this gap.

So what will the pragmatists of this reconfiguration look like? What will we "do"?

Some of it we already do in many institutions, heuristically, chaotically, opportunistically without any concomitant theorizing. The tools are already in hand to make transformative change—and I would not have said that as recently as 1993. We can make some good surmises about technologies that are coming to help us further, but even if we have only the PC and the Internet of 1995, we have enough to revolutionize education in startling ways.

"Resource-based learning" is a buzz phrase, but it points to a powerful trend. We can create teaching tools interactive enough and rich enough to let the student seek them out and work with them at her own pace. Such tools do not directly address the central educational mission of motivation and direction but instruction that is available when the student needs it and powerful enough to sweep the student along can reinforce motivation and accelerate progress. This can be done most obviously for content-based instruction in specific disciplines at a fairly elementary to intermediate level (whether to replace traditional courses or to supplement them).

Resource-based learning is immensely powerful for "distance learners" of all kinds. The market for higher education among people whose lives do not allow them the regular assignment of time and presence that traditional teaching requires has hardly been touched. I have taught Internet-based seminars on Augustine and on Boethius with hundreds of auditors from around the world and now even paying customers getting "credit" from my university for rigorous work carried on far from Philadelphia. These experiments suggest to me that this market is a significant one precisely for an arduous discipline like classics. The secondary school Latin teachers of America, for example, work often with little contact with each other or with the academy, and they are too few and too scattered to justify classroom-based course work that can reach more than a fraction of them. But in the aggregate, the Latin teachers of America are more motivated and better qualified to take advanced work than our regular undergraduates. If we can

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deliver high quality instruction to them reliably via the electronic networks, we do ourselves a favor (more students), we do them a favor (re-energizing and re-directing their teaching), and so we do our profession a favor (building from the school level up) and whatever benefit the study of the ancient languages confers on society as a whole is measurably increased. And somehow—perhaps this is the most important point of all—the joy and the wonder of it all, the magic of education at its best, spreads farther and deeper across the land. (A state university that thus increases what we may call its "market penetration" may find remote rural legislators no longer so skeptical of its value to the citizenry.)

Of course, education is not just downloading information. The most valuable part, all agree, is the personal contact that motivates, ignites, and guides. American higher education has long struggled with the right model for facilitating this kind of connection between faculty and students. Woodrow Wilson's preceptorials at Princeton, somewhere between an Oxford tutorial and a German seminar, are an institution that all who know it praise it and all are quite sure died some time ago even, or rather especially, the most skilled contemporary practitioners of that local art. But it offers a model for what the professor of tomorrow should be doing.

For that professor is no longer what he was in the days when the university embodied all studies in a single location. The university was once a microcosm, a miniature world offering the whole of knowledge in a restricted arena. Every discipline represented had its professor who was the supreme local authority on the subject. That supremacy faded long ago and students found more ways to learn about their subject than to sit and listen to the local professor (the growth of our great libraries over the last century brought the world to our door—historians may yet decide that it was the librarians who invented and have real right of ownership on the information superhighway), but the structure of the institutions we have still reflects that origin. An old model of that kind may be powerful and useful, and we should think long about how to adapt it to the future; but new metaphors can be useful as well.

I venture to suggest that the real roles of the professor in an information-rich world will be not to provide information but to advise, guide, and encourage students wading through the deep waters of the information flood. Professors in this environment will thrive as mentors, tutors, backseat drivers, and coaches. They will use the best skills they have now to nudge, push, and sometimes pull students through the educationally crucial tasks of "processing" information: problem-solving, analysis, and synthesis of ideas. These are the heart of education and these are the activities on which our time can best be spent. Apart from that, the professor will be a point of contact to a world beyond the campus. (For if the student is already in touch with that world directly, then the local microcosm is of no "special" value unless it aids you in your exploration of the larger whole outside.)

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A few things to read of particular relevance here:

Richard Lanham, *The Electronic Word* (Chicago: University of Chicago Press, 1993)
— theory and practice of the new, enthusiastic

Sven Birkerts, *The Gutenberg Elegies* (Boston: Faber, 1994)
— theory and practice of the new, skeptical

Ann Okerson, ed., *Scholarly Publishing on the Electronic Networks* (Washington: Association of Research Libraries 1993, 1994, 1995)
— a series of symposia on current issues and developments

J.J. O'Donnell, "The Pragmatics of the New: Trithemius, McLuhan, Cassiodorus," forthcoming in U. Eco et al., *The Future of the Book* (Berkeley: University of California Press, 1996), available as preprint at <URL:http://ccat.sas.upenn.edu/jod/publications.html>.

Preserving Scientific Data

The National Research Council, on behalf of the National Archives, NOAA, and NASA recently released a study on the topic of long-term retention of the federal government's scientific and technical data in the physical sciences. The study concentrated on data stored in electronic media and while the focus was on long-term retention of the data, near-term management issues were addressed as necessary elements for effective archiving. The committee did not reach consensus on a major recommendation: namely, to establish a National Scientific Information Resource (NSIR) Federation.

The resulting reports are:

- *Preserving Scientific Data on Our Physical Universe: A New Strategy for Archiving the Nation's Scientific Information Resources.*
- *Study on the Long-term Retention of Selected Scientific and Technical Records of the Federal Government: Working Papers.*

Both reports are available from the National Academy Press, Washington, DC.

Continued

TRANSBORDER FLOW OF SCIENTIFIC DATA STUDIED

Scientists commonly encounter barriers in gaining access to data relevant to their research. These barriers, both technical and non-technical, have been a topic of increasing concern in recent years. Sheer volume has been one factor, but by no means the only one. The integration of multidisciplinary data on an international basis to address problems such as global environmental degradation or disease epidemics raises new kinds of challenges in this regard.

The National Research Council has organized a study, chaired by R. Stephen Berry of the University of Chicago, to investigate the barriers and other issues in the transborder flow of scientific data. The study's goal is to help improve access to scientific data and services internationally. The primary focus is on data in electronic forms. The study is outlining the needs for data in the major research areas of current scientific interest in the natural sciences. The legal, economic, policy, cultural, and technical factors and trends that have an influence—favorable or negative—on access to data by the scientific community are being characterized. The study also is identifying and analyzing the barriers to international access to scientific data that may be expected to have the most adverse impact in the natural sciences, with emphasis on factors common to all the disciplines. The study will recommend to the federal government and the scientific community approaches that could help overcome barriers to access internationally.

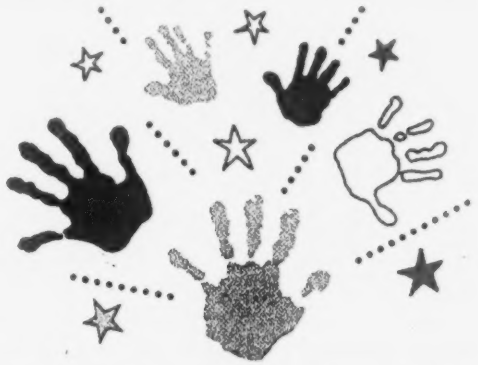
The study is being performed under the auspices of the U.S. National Committee for CODATA, a standing committee organized under the National Research Council. CODATA—the Committee on Data for Science and Technology—is an interdisciplinary committee organized under the International Council of Scientific Unions.

In order to obtain broad input from the users and suppliers of scientific data, the study committee has developed an "Inquiry to Interested Parties" requesting information on: barriers to data access, pricing of data, protection of intellectual property, problems of less developed countries, scientific data for global problems, the use of electronic networks, and other technical issues. Anyone interested in providing views to the study committee is invited to respond to this public inquiry, which is posted on CODATA's World Wide Web Home Page <URL:http://www.cisti.nrc.ca/codata/welcome.html>. Information about the study and CODATA activities generally may be obtained from Paul F. Uhlir, Director, USNC/CODATA, National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418.

– *R. Stephen Berry, University of Chicago and Paul Uhlir, National Research Council*

ARL RECRUITS FOR DIVERSITY PARTNERSHIP PROGRAM

In 1994, ARL/OMS began a partnership program called *Opportunities for Success*. The goal was to promote the development of diversity initiatives and to bring together libraries, library associations, and library schools to pursue local and regional diversity initiatives collaboratively. ARL brings to the table the benefit of five years of exploration of these issues. The



partners bring to the program their opportunities, challenges, energies, and aspirations. It is the hope that these partnerships will provide models and successful strategies for others to consider.

The program was established to respond to concerns expressed by librarians that diversity issues are often difficult to pursue because of the lack of local expertise. Twenty-five partners are engaged in the 1994-1995 program, and the results of their efforts will be shared throughout 1996. Kriza Jennings, ARL's Program Officer for Diversity and Minority Recruitment, serves as the consultant for these partnerships.

Partners commit to a two-year program and agree to bring Ms. Jennings on-site at least once per year. They receive a discounted fee for their participation. Partners agree to share the results of their initiatives with ARL libraries and others by contributing to presentations, articles, resource kits, or responding to inquiries when referrals are made.

ARL is recruiting for new partnerships from the ARL membership to operate in 1996-1997. The range of issues that may be explored within a partnership is broad, and each partner must only commit to one specific challenge or opportunity, although other activities may be explored and/or implemented. Initiatives may be focused on one department of the library, on the broader context of a library-wide program, or on exploratory joint initiatives with other units in the institution or the community. To learn more about joining the diversity partnerships program, contact Kriza Jennings (kriza@cni.org).

The Library of Congress Leadership Development Program and ARL/OMS Partnership

by Kathryn J. Deiss, ARL/OMS Program Officer for Training

ARL/OMS Training and Organizational Development staff and the Diversity and Minority Recruitment Program Officer are working with the Library of Congress (LC) Leadership Development Program (LDP) to provide the first class of ten LDP Fellows with expanded leadership skills.

The Leadership Development Program offers future library, archive, and preservation leaders with an intensive 15 month developmental opportunity. As participants in this program, the Fellows complete a number of rigorous developmental exercises, seminars, and presentations in addition to working for 15 months in a responsible LC position. The Library of Congress received a generous gift from John Kluge, President of Metromedia Co. and Chairman of the Library of Congress Madison Council, to support the LDP.

The Library of Congress LDP Fellows present the ARL Minority Recruitment and Retention Committee with a creatively structured and multi-faceted picture of the LC Leadership Development Program.

The Advisory Committee for the LC LDP, chaired by the Hon. Major Owens, includes Dr. Charles Churchwell, Dr. Hardy Franklin, Mr. Martin Gomez, Dr. E. J. Josey, Dr. Susan Lee, Dr. Jessie Carney Smith, and Dr. John Tyson. Fern Underdue, Leadership Development Program Manager, manages the program out of the LC Office of Diversity, headed by Jo Ann Jenkins, Senior Advisor for Diversity.

In the first year of the program, 186 people applied for the ten available fellowships. The ten Fellows chosen are: Rose Rodriguez Apter, Lavonda K. Broadnax, Adrienne A. Cannon, Marieta L. Harper, Arlyne A. Jackson, Judy Shuet-Heung Kestell, Charlynn Spencer Pyne, James E. Scott, Amparo de Torres, and Lester Vogel. Five of the Fellows were selected from LC staff applicants, and five were selected from outside applicants.

In addition to the first six months of seminars and learning opportunities, the Fellows attended the National Leadership Institute at the University of Maryland, where they were participants in the Center for Creative Leadership's week-long Leadership Development Program©. Kathryn Deiss of ARL/OMS accompanied them for most of that experience.

Maureen Sullivan, ARL/OMS Organizational Development Consultant, and Kathryn Deiss, ARL/OMS Program Officer for Training, worked with LC staff to further develop the remaining portion of the program that related to management skills and abilities. Kriza Jennings, ARL Diversity and Minority Recruitment Program Officer, met with the Fellows to discuss future career options and strategies.

Maureen Sullivan will direct the sessions on topics such as: financial management, strategic planning, interpersonal relationships and communication, leading during change, research in librarianship, and creative problem solving. During the final months of the program, the Fellows will also attend sessions on library technology which will be directed by LC staff and the Special Libraries Association.

Joan Chambers, Director of Libraries, Colorado State University Libraries and chair of the ARL Minority Recruitment and Retention Committee, and Kriza Jennings, Program Officer, invited the Fellows to attend the Committee's meeting at the ARL October Membership Meeting, where some ARL directors had the privilege of hearing the LDP Fellows describe their program thus far.

The first class of the LC Leadership Development Program will conclude their fellowship in March 1996 with a very strong set of intellectual and practical leadership skills. The Fellows, through writing, public presentations, seminar involvement, as well as through their everyday work, will be prepared to take leadership roles in the library world. ARL libraries with position openings should take note of this very sharp and well-rounded group of potential candidates. Interested libraries can contact the Fellows directly, or secure further information from Fern Underdue in the Library of Congress Office of Diversity, (202) 707-6433, Library of Congress, 101 Independence Avenue, SE, Room LM 623, Washington DC 20540.

FEDERAL RELATIONS

Prudence S. Adler, Assistant Executive Director-Federal Relations and Information Policy

DIGITAL FUTURE COALITION FORMED

ARL is participating in a broadly based public/private coalition that is concerned about a rush to amend the Copyright Act for the digital environment. The following letter was sent to lawmakers in November as they began hearings on the Information Infrastructure Copyright Act (S. 1284 and H.R. 2441). Members of the coalition (see list below) view this letter as a first step in informing Members of Congress about the impact of the proposed legislation on privacy, innovation, information access, education, and protection for copyright owners. The letter is also intended to serve as a discussion document within the stakeholder communities.

November 9, 1995

Honorable Member United States Congress
Washington, D.C.

Dear Congressperson:

The 27 undersigned charter members of the Digital Future Coalition have been drawn from both the public and private sectors. Together, we represent a combined membership of more than 2.2 million individuals, corporations and organizations with direct interests in the continued growth and development of the National Information Infrastructure. Although extraordinarily diverse, we have an immediate goal in common: assuring that the coming Congressional debate over how the law of intellectual property can and should change in a digital age is thorough, broad and balanced.

The membership of the DFC encompasses consumers, distributors, and creators of information. We share the view, as expressed upon introduction of the "Information Infrastructure Copyright Act" (S. 1284 and H.R. 2441), that "we need rules for our digital highway." Together, the members of the DFC are committed to supporting proposals which promote innovation in the information and technology industries, personal privacy in electronic communication, and public access to information resources, as well as appropriate protection for copyrighted content in the digital environment.

The DFC is deeply concerned that these universal goals will not be realized if the unbalanced analysis and incomplete technological understanding of the recent "White Paper" report by the National Information Infrastructure Task Force's Intellectual Property Working Group are accepted and prematurely codified. While the authors of the White Paper claim that its recommendations, embodied in legislation now pending in both Houses of Congress, constitute only a "minor clarification" of current copyright law, the real ramifications of those recommendations are sweeping.

Accordingly, the DFC respectfully requests that—to minimize the substantial risk of unintended consequences in this highly complex area of the law—Congress initiate and promote the broadest possible review and public discussion of both the specific statutory proposals now pending and the underlying premises of the White Paper.

Specifically, the DFC believes that the legal regime envisioned in the White Paper, and reflected in S. 1284 and H.R. 2441, is one that could:

- delay or even prevent the emergence of new commercial technologies which "add value" to digital information by increasing copyright owners' effective control over data resources;
- "pick winners" and frustrate competition in the marketplace for digital goods and services by favoring established companies with large holdings of copyrighted works over innovative "startup" enterprises;
- stifle innovation and job creation in the private sector with overbroad prohibitions against manufacture and sale of legitimately useful consumer electronic devices, and by severely restricting reverse analysis of hardware and software for purposes of achieving interoperability;
- invite invasion of the privacy of digital information users (including students and library patrons), and expose on-line/internet service providers to unspecified legal liability, by failing to address the unique circumstances of these new communications media;
- threaten the growth of new electronic educational techniques, such as "distance learning" programs vital to rural communities, by imposing potentially prohibitive copyright clearance costs on academic innovators;
- reduce educators' and the public's access to digital information by creating a new "transmission right" which would make electronic communications "distributions" within the meaning of the Copyright Act, and by categorizing even "browsing" as a potentially infringing "reproduction";
- undermine writers, artists and other individual creators by ignoring their concerns about intellectual property ownership in the digital environment;
- increase the gap between information "haves" and "have-nots" by creating new protections for copyright holders without providing balancing safeguards for users; and
- erode the traditional concepts and practices of "fair use" by failing to reaffirm their importance in the digital environment.

While virtually all these concerns were before the Working Group which produced the White Paper, we believe that they are inadequately addressed in the White Paper itself, and we respectfully submit that Congress must correct that inadequacy in the record.

The Digital Future Coalition believes that the stakes in the coming Congressional deliberations over S. 1284 and H.R. 2441 and the White Paper are high. Unless Congress

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immediately asserts its authority over this vital area of public policy, we fear that premature action on the international front could commit the nation to an imperfectly considered and even dangerous course.

The White Paper was simultaneously released in Washington and at September's meeting of the World Intellectual Property Organization in Geneva. Secretary Brown and Commissioner Lehman, of the Patent and Trademark Office, have been clear in their public statements that the White Paper is intended to serve as a model for the global "rules" of the information superhighway. To this end, the U.S. government delegation to the W.I.P.O. meetings has urged that a final diplomatic conference to agree upon new treaty language covering the "digital agenda" should take place early in the second half of 1996. With this schedule in mind, countries including the United States reportedly will be submitting proposed treaty language to W.I.P.O. by November 20, 1995.

Congress should not let this international agenda determine the shape of domestic intellectual property law. To assure full consideration of the legal issues crucial to the realization of our shared digital future, and to avoid a potentially disastrous and unnecessary rush to judgment, the DFC respectfully urges you to:

- publicly announce your support for a comprehensive series of hearings in the Second Session of this Congress for the purpose of thoroughly scrutinizing the full range of intellectual property issues raised by the NII;
- formally communicate to the Executive Branch the Congress' conviction that the United States should take no action in international intellectual property negotiations that could force Congress to choose between either complying with a new international standard, or promoting the best interests of American creators and users of intellectual property; and
- actively seek independent and detailed assessments of the White Paper from interested organizations across the political spectrum.

The DFC appreciates that the sponsors of the pending legislation regard the introduction of S. 1284 and H.R. 2441 as the beginning of the complex process of designing the "rules of the road for the information superhighway," and we look forward to working closely with you to assure that those rules are fair and well crafted. We note that today both commercial and noncommercial use of the NII is increasing geometrically, within the sound basic framework of existing intellectual property laws. There is therefore no urgent reason to legislate soon rather than well.

In the near future, we will request a meeting with you and your staff to detail the bases of our broad concerns. In the interim, the Digital Future Coalition thanks you for your dedication to rational intellectual property policy. Wide-ranging as our membership is, we share that fundamental commitment with you and with each other.

Sincerely,
Alliance for Public Technology
American Association of Law Libraries
American Committee for Interoperable Systems
American Council of Learned Societies
American Historical Association
American Library Association
Art Libraries Society of North America
Association of American Geographers
Association of Research Libraries
Center for Democracy and Technology
Committee of Concerned Intellectual Property Educators
Computer & Communications Industry Association
Conference on College Composition and Communication
Consortium of Social Science Associations
Consumer Federation of America
Consumer Project on Technology
Electronic Frontier Foundation
Electronic Privacy Information Center
Modern Language Association
Medical Library Association
National Council of Teachers of English
National Education Association
National Humanities Alliance
National School Boards Association
National Writers Union
People for the American Way Action Fund
Special Libraries Association

Digital Future Coalition
1301 Pennsylvania Avenue, N.W.
Suite 403
Washington, D.C. 20004
202-628-8410 ext.208
dfc@alawash.org

The letter is available on the ARL server:
<URL:http://arl.cni.org/info/dfc.html>
<URL:gopher://arl.cni.org:70/00/scomm/copyright/nii/admin/dfc>

For additional information about the Digital Future Coalition contact: Prue Adler, ARL Assistant Executive Director, Federal Relations and Information Policies (prue@cni.org).

Paul Evan Peters, Executive Director

CAMPUS/COMMUNITY NETWORKING PARTNERSHIPS

The Coalition for Networked Information's Fall Task Force Meeting was held on October 30-31, 1995 in Portland, Oregon. The theme of the meeting was Campus/Community Networking Partnerships.

In his introduction to the meeting, Paul Evan Peters, Executive Director of the Coalition for Networked Information, stated that the pendulum had swung away from campus-based networking strategies to commercial sector strategies. Now, the pendulum is ready to move back to campus-community based strategies, and the meeting focused on these partnerships as an effective middle ground between purely campus-based versus purely commercial networking and networked information strategies.

Campus/Community Networking Partnership: Boulder Community Network

Ken Klingenstein, Director of Computing and Network Services, University of Colorado, Boulder, presented his views in a plenary session on developing networked information resources and services in a community context. Klingenstein is co-principal investigator on both the Boulder Valley School District Project, a national testbed for the deployment and utilization of K-12 networking and the Boulder Community Network, an effort intended to provide a sustainable model for community networking. Klingenstein has also played an active role at the federal level, serving as a member and chair of the Federal Networking Council Advisory Committee (FNCAC) and as a member of the board of the Federation of American Research Networks (FARNET). He is also currently serving as a member of the Steering Committee of the Coalition for Networked Information.

Klingenstein provided a cogent and thoughtful overview of the issues involved in providing a community information network and also articulated many of the values that he feels are important for the community network to embody and preserve. He feels that the seminal role of community networks is to act as beacons in the Internet ocean by creating some structure for users.

Klingenstein described the goals of the Boulder Community Network (BCN):

- to build a distributed information service for the community;
- to provide target community groups with network training and access;
- to create an online community discussion forum; and
- to assess the impacts of technology on the community.

Scaling Issues

His talk, *Scaling Issues in Networked Information,* described the issues that BCN has grappled with, many of which are the same as those faced in university environments. Scalable approaches to access are a key issue for the community network, and BCN has found that they need more than one access option to serve the wide variety of users and institutions, e.g. senior citizen centers, households, and schools. Managing the diversity of access mechanisms is difficult and creates user support costs. A high percentage (60%) of households in their area use networks, but BCN still needs to address public access issues, and they are looking at building Web kiosks for public access.

Klingenstein reviewed the complex issues related to providing information in the community network context. Working with agencies and businesses with a wide range of expertise and ensuring that the information is up-to-date and from an authoritative source are key challenges. He noted that if the people who are providing the information are also using it themselves on the network, they will be more motivated to provide it quickly and accurately. BCN has needed to assume a role in integrating the information provided by the many community agencies in the area. BCN is also assisting with the development of state information resources and is responsible for the State of Colorado homepage. He noted that to make all this work has required a lot of distributed authority.

Organizing information provided by agencies in a variety of formats is also a difficult task. The need to structure data for integration is critical. The data needs to be provided in a form that will permit its use and display for a variety of purposes.

Among the issues that should be considered in the design of information for community networks are: the judicious use of graphics, ensuring that the information is designed for the screen, and designing for the trailing edge so that users do not need to have the most sophisticated equipment or network access in order to use the information resource.

Klingenstein said that he feels that the greatest overall needs are for the development of a distributed information services environment, the need for automated processing of information, the need for post-processing, and the need for a protocol that is open, extensible, and public.

In his discussion of navigation issues, Klingenstein noted that his experience showed that people want three types of integration—geographic, topical, and chronological. There is also a need for the localization of information in the global Internet environment. He feels that it is particularly important for organizers of community networks to manage the top three levels of the information space, e.g. the top three menus, since that is where most of the integration of information takes place. Other navigation issues he identified were

the need for common search engines and the question of what "home" means for the community World Wide Web user.

Many policy issues need to be addressed in the organization of community networks, including individual expression in the public forums of the network and disclaimers for the information on the network.

Klingenstein described organizational models to consider in the long-term as community networks mature. They include profit options, such as cable and newspaper; public sector choices, including government and commerce; and, non-profit sector structures with the support of grants.

He described what he referred to as the "hidden agenda" of the BCN project. One of his key interests is in tying the community network to the schools, and he and his team are developing a curriculum which involves local data and issues, for example, a module on working with a GIS system coupled with a discussion of zoning issues. In addition, they are involved in a reengineering of social processes in the community by providing new ways of access to information. By providing the local United Way *Red Book* over the network, they are providing a view and access to the local social service agencies that is different from what existed in the print environment. They are also building a physical community, which involves creating a number of cross-community teams, supporting the shared necessities, and displaying the diversity of the community in the information commons.

School Networking Project

Klingenstein also described the goals of the Boulder Valley School District Project in which he is attempting to:

- build a scalable model for deployment of networking in K-12, including technology and teacher training;
- develop a curriculum which utilizes the particular characteristics of networking to reform education; and
- assess the impact of the technology in education.

He noted that while the community is deeply divided about many educational issues, they have found that a common ground is the community's interest in technology in education. Significant resources have been invested in teacher training, but they have found that while teachers can learn to use the network, the real reform of education is difficult to achieve. Schools need to go beyond pedestrian uses of networking to achieve educational reform and the full benefits of the technology.

Klingenstein's projects have received support from the University of Colorado, the National Science Foundation, the TIIAP program of the U.S. Department of Commerce, and the Boulder community. He characterized the grants as catalytic to the projects, not as major sources of funding.

Keeping the Human Perspective in the Network

Klingenstein closed his presentation by encouraging the members of the audience to assist their communities in balancing local, global, and personal citizenry in the network environment and to ensure that the traditional guideposts of humanity are maintained since the network is ultimately such a powerful tool—we must have a human perspective and we must nurture it.

Additional information on this presentation, other plenary sessions, project briefings, and synergy sessions held at the Fall Task Force Meeting is available on the Coalition's Internet server: <URL:http://www.cni.org/CNI.homepage.html>.

The Coalition's Spring Task Force Meeting will be held in Washington, DC on March 25-26, 1996.

– Joan Lippincott, Assistant Executive Director

Project Briefings

A number of the project briefings at the Fall Task Force Meeting reflected the meeting theme of campus/community networking partnerships and also included partnerships between state and public libraries and their communities. These included:

Community Networks and a Model for Technology Transformation,
by Vicki Suter and Joan Gargano, University of California, Davis

Utah Library Network Project: Lessons from the Trenches,
by Amy Owen, Utah State Library

Maryland SAILOR Project,
by Barbara Smith, Maryland State Department of Education

Academic Outreach at the University of Michigan,
by Douglas Van Houweling, University of Michigan

Education versus Technology: the Evolution of the Blacksburg Electronic Village,
by Andrew Cohill, Virginia Polytechnic and State University

Public Libraries and Public Access to the Internet,
by Dan Iddings, Carnegie Library of Pittsburgh; and

Lane Education Network,
by J.Q. Johnson and Joanne Hugi, University of Oregon.

Information on many of these projects and links to their homepages are available on the CNI server.

TRAINING TECHNOLOGY TRAINERS: TRAINING AT THE UNIVERSITY OF CHICAGO LIBRARY

by Kathryn J. Deiss, ARL/OMS Program Officer for Training and Katherine W. Haskins, University of Chicago Bibliographer for Art, Film, and Theater

Earlier this year, the University of Chicago Library and Indiana University Library entered into a development partnership with Ameritech Library Services (ALS) to implement and enhance the Horizon integrated library system. At the University of Chicago, the change involves migrating staff from the original mainframe system "Library Data Management System" to Horizon, a client/server-based system.

To ensure that the system developed would meet the University of Chicago's needs, the University Library appointed several working groups to establish the specifications for Horizon's implementation. The library defined the working groups around the individual system modules: the Public Access Catalog (PAC), Cataloging, Serials, Acquisitions, Circulation, and Reserve. These modules will be phased in over the course of the 1995-96 academic year. The first modules to go into production mode are the PAC (available fall quarter), Circulation, and Reserve (winter quarter).

The library identified staff training in these modules as a high priority and formed a "Training Advisory Group" to organize a library-wide program. This advisory group consisted of Priscilla Caplan, Assistant Director for Systems; Judith Nadler, Assistant Director for Technical Services; Denise Weintraub, Head of Library Personnel; and Kathleen Zar, Science Librarian. This group identified a Training Team of 24 staff members to be the Horizon trainers or consultants on training for all modules library-wide.

The Training Advisory Group then put together a request for proposal (RFP) for training consultants to come to the University of Chicago and provide a "train the trainers" workshop. In addition, the consultants would assist the staff trainers with the design of training sessions and written technical training scripts. In late May 1995, ARL/OMS received this RFP and immediately engaged in writing a competitive proposal in response. In June, the Training Advisory Group appointed Katherine Haskins, Bibliographer for Art, Film, and Theater, as the Training Coordinator. She would also serve as a member of the Training Advisory Group and as a trainer. It became her job to coordinate the consultants and the Training Team and to schedule all activities surrounding the Horizon training efforts, including scheduling trainers and participants throughout the length of the training program.

ARL/OMS was awarded the contract in late June. ARL/OMS consultants for the work were Maureen Sullivan, ARL/OMS Organizational Development Consultant; George Soete, Adjunct Organizational Development Consultant; Kathryn Deiss, ARL/OMS Program Officer for Training; Bridget Canavan, Head of User Support Services, Information Technology Division, Northwestern University Library; and Mary Margaret Case, Director of Program Review and Special Projects, Northwestern University.

At the suggestion of the ARL/OMS consultants, the library established an electronic reflector for the Training Team, TAG, and ARL/OMS consultants. This became a life-line at times and a vehicle for advising the Systems Office quickly when particular questions came up. The group used email throughout the project, and the training session calendar was posted on a library web page. However, the "official" training calendar was a large sheet of tracing paper covered with Post It™ notes and penciled notations. This combination of high- and low-tech methods typified the training and instruction experience.

The ARL/OMS team immediately began to plan the two-month project in detail, working to have the first sessions in place in ten days. The first step was a two-day orientation to the University of Chicago groups (TAG, the working groups, and especially the Training Team), followed by a day-long Horizon system orientation demonstration. This system introduction for the Training Team and the ARL/OMS consultants was presented by Kathy Cunningham, Senior Consultant in the ALS Implementation unit, and took place in the ALS offices in Evanston, Illinois.

After the orientation, the Training Team, plus Kathy Cunningham of ALS, attended a specially-designed ARL/OMS four-day *Training Skills Institute* presented to them in two two-day segments. In this four-day institute, the University of Chicago trainers learned about adult learning theory underlying successful transfer of training, learning styles, training styles, and training tools and techniques, with particular emphasis on technology training. ARL/OMS consultants provided participants with a hefty notebook of resource materials on training issues.

Due to the pressing need for actual Horizon training to be delivered to library staff before the fall quarter began, it was imperative that the Training Team be engaged in designing training sessions and in writing technical scripts as part of the *Institute*. ARL/OMS *Training Skills Institutes* have long incorporated the use of a practicum, or near-real, training session as a means of giving participants meaningful practice and an opportunity for feedback. At the University of Chicago, the practicum sessions took place two weeks after the *Training Skills Institute*. In the intervening two weeks, the Training Team worked on developing the scripts, handouts, and overall design of their sessions.

ARL/OMS consultants Kathryn Deiss, Bridget Canavan, and Mary Margaret Case were on hand to assist with designing and scripting questions.

The purpose of the practicum sessions was to allow time for feedback from peers and ARL/OMS consultants, as well as from a few naive (i.e., unknowledgeable about the Horizon system) trainees invited to attend sessions. Following the practicum week, the Training Team members refined and revised their scripts and designs.

The ARL/OMS consultants and the library participants established a good working relationship early in the project. The Training Team members were bright, enthusiastic, positive, and realistic people determined to improve their skills and intent on producing the highest quality training sessions for library staff. The relationship established in the first few days was greatly strengthened during the *Training Skills Institute*.

The Training Team determined that they should divide themselves into three groups with four distinct training responsibilities: the Circulation/Reserve Group; the "Big Picture" Orientation group; and the Functionality Training Group which was responsible for an "Introduction to the Windows/GUI Environment" session, as well as an "Introduction to the Public Access Catalog (PAC)" session. The ARL/OMS staff was impressed by the high level of collaboration and genuine teamwork within the group from the outset of the project through present-day delivery of training: Even though all of the Training Team members had their regular jobs to attend to, the library administration wisely gave this work a high priority thereby giving staff the freedom to concentrate on the design of their sessions.

Two weeks after the Training Team was "trained" in training design and techniques, they were presenting fully designed and scripted Horizon sessions to the ARL/OMS consultants and their Training Team peers. The high quality of their work was immediately visible. They had developed graphically consistent and useful handouts, a PowerPoint slide show for the "Big Picture" session, and an engaging style of delivery. They were a high performance training team after only four weeks. Recently, this type of group was defined as a "hot group" by Harold J. Leavitt and Jean Lipman-Blumen, who describe such a group as "...just what the name implies: a lively, high-achieving, dedicated group, usually small [3-30], whose members are turned on to an exciting, challenging task....They do great things fast."[1] Characteristics of a "hot group" are "vital, absorbing, full of debate, laughter, and very hard work."[2]

At the University of Chicago, the hot group members and subgroups helped each other through just such debate and hard work, as much as they were helped by the consultants. The Training Team used the feedback they received and prepared to begin the Horizon training sessions in earnest. Between August 14 and September 22, three months after receiving training themselves, the University of Chicago Training Team trained over 150 staff members in various aspects of the Horizon system. They held a combination of 52 training sessions. PAC training classes will resume later in the academic year, when the data conversion is completed, and the Horizon PAC becomes the official online catalog. Circulation staff are planning to bring up the Horizon Reserve module during the winter quarter, and the Horizon trainers will continue to work with them on training in Circulation and Reserve. Public instruction for the Horizon PAC is ongoing.

Due to the unique staff training approach that the University of Chicago took, the library now has a new staff development capability: an in-house group of skilled trainers. While not all members of the Training Team will be interested in continuing to train, the opportunity exists for those who do have an interest. The University Library has the latitude to use the skills of these trainers for other training needs, such as user instruction in the Horizon system, and this principle has already been put into practice. Another bonus of the ARL/OMS *Training Skills Institute* was the increase in collegialism among staff in different Library departments and divisions, who got to know and work with each other in a very special way.

Annette de Soto, Head of Lending Services in Regenstein Library, observes, "the [ARL institute experience] provided a much-needed foundation from which we could confidently develop our training sessions [by offering] insight into more general issues of teaching and learning styles that are useful (and used) on almost a daily basis."

According to Leavitt and Lipman-Blumen on the "growing" of a hot group, the fundamental way to achieve what the University of Chicago has achieved with its Training Team is to "Make room for spontaneity; encourage intellectual intensity, integrity, and exchange; value truth and the speaking of it; help break down barriers; select talented people and respect their self-motivation and ability; and use information technology to help build relationships, not just manage information."[3] All of these elements are in place at the University of Chicago and the success of their Horizon training program is a testament to leadership and collaboration.

[1] Leavitt, Harold J. and Jean Lipman-Blumen. "Hot Groups," *Harvard Business Review*, July-August, 1995, pp. 109-116.
[2] Ibid
[3] Ibid

ARL Activities

G. Jaia Barrett, Deputy Executive Director

127th Membership Meeting Examines Partnerships

ARL President Jerry Campbell presided over the 127th Membership Meeting of ARL on October 18-20 in Washington DC. The directors or deans of libraries, representing 110 ARL member libraries and 20 member libraries of SCONUL, the Standing Committee on National and University Libraries in Great Britain, along with a handful of guests, attended programs and discussions that centering on the theme *Building Partnerships That Shape the Future.*

The program explored issues and projects that aim to reshape scholarly communications in an electronic environment, including: the AAU/ARL Research Libraries Project; The Andrew W. Mellon Foundation's JSTOR project; proposals to create new models for dissemination of government information; and recent legislation to alter copyright to encourage commercial investment in electronic communication. The program also included panels on the expectations of benefits from inter-institutional agreements, and the changing demographics of research libraries and the communities they serve.

Nancy Cline, Dean of University Libraries, Pennsylvania State University, began her term as ARL President at the Association's Fall Membership Meeting in Washington, DC.

During the Business Meeting, representatives elected three new members to the ARL Board of Directors: Betty Bengtson (University of Washington), William Crowe (University of Kansas), and Carole Moore (University of Toronto). President Jerry Campbell announced that the ARL Board elected Gloria Werner (UCLA) as Vice President/President-Elect. At the conclusion of the Business Meeting, Dr. Campbell handed the gavel to Nancy Cline (Pennsylvania State University) as she assumed her term as ARL President.

Three directors were honored for their service on the ARL Board of Directors: Dale Canelas (University of Florida), George Shipman (University of Oregon), and David Stam (Syracuse University); and special thanks were extended to John Black (University of Guelph) for four years of service to ARL as a member of the Board and Executive Committee.

The next ARL Membership Meeting will be held May 15-17, 1996 in Vancouver, British Columbia.

Building Partnerships That Shape the Future

Papers presented at the recent ARL Membership Meeting program are being published electronically as they are received: see ARL's WWW server <URL:http://arl.cni.org/arl/proceedings/index.html>. Excerpts from three papers follow.

JSTOR and the Economics of Scholarly Communication

..."JSTOR" (our acronym for "journal storage"), this denizen of electronic databases, began life as one of several demonstration projects funded by The Andrew W. Mellon Foundation, moved rapidly from infancy to adolescence, and now enjoys an independent existence, having been incorporated as a separate nonprofit entity within the last few months.

Early on, we explained our plans to the head of one widely known commercial enterprise, who was quick to comment: "No sane person would do what you propose." We were undeterred. We thought that we had an opportunity, and perhaps even an obligation, to make up front investments that could have long-term social value for the scholarly community at large. Unlike commercial entities, the test of success for us is not any "bottom line," but how well we facilitate teaching and scholarship by improving the mechanisms of scholarly communication.

At the same time, we recognize that such broad statements of good intentions often mean little—as one of my friends likes to put it, "good intentions randomize behavior." Fiscal discipline is needed, and we have always believed that JSTOR would have to be self-sustaining eventually. Perpetual subsidy is both unrealistic and unwise: projects of this kind must make economic sense once they are up and running. If users and beneficiaries, broadly defined, are unwilling to cover the costs, one should wonder about the utility of the enterprise. In this important respect, we are strong believers in "marketplace solutions"—provided that what the economist calls "externalities" can be captured.

– William G. Bowen, President, The Andrew W. Mellon Foundation

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Realizing Benefits from Inter-institutional Agreements

...[C]opyright policy may become a significant restraint on inter-library cooperation. The Commerce Department...has now produced its White Paper[1] *...deliberately written as a legal brief, the rationale being that it is only a technical update on established legal understandings, an extension to accommodate new information technologies. In fact, the White Paper implies fundamental changes in copyright law, and these changes are partially concealed by the rhetorical structure of legal discourse.*

I'm particularly concerned about the economic impact of the newly defined "transmission right," that the transmission of copyrighted information by network will be defined as making an illegal copy. Transmission rights potentially add substantial costs to some of the most exciting technologies for access in higher education, particularly distance education and shared digital collections. If a copyright charge is added every time something is transmitted, the costs of using technology for shared information resources are going to be driven up dramatically.

...[T]acitly, the White Paper assumes that the market is the sole mechanism for achieving the public interest in access to information. In itself, the idea of transmission rights might be an effective way to help create a stable marketplace for electronic publication. Ominously, however, the White Paper is virtually silent on the issue of Fair Use in digital environments, deferring consideration of Fair Use until later. Transmission rights combined with silence about Fair Use, and a recommendation that licensing be the primary mode of access to information, is imbalanced public policy, designed to solve the problems of publishers without the concern for public education which is traditional in copyright policy.

...[T]he vital interests of public education are at stake in this discussion, and particularly in the silence about the status of Fair Use in digital environments; without Fair Use, and with copyright extended to include transmission rights, institutional cooperation will become more expensive.

– Peter Lyman, University Librarian, University of California-Berkeley

Realizing Benefits from Inter-institutional Agreements: The Implications of the CPA/RLG Draft Report of the Task Force on Digital Archiving[2]

Can we...generate an hypothesis about the current state of scholarly communication that frames the problems directly—or at least more directly—in terms of preservation? I believe that we can. Let us imagine that the core problem in the scholarly communication process for at least a subset of scholarly disciplines is that the conventional published record simply does not adequately capture the intellectual action. The real action occurs elsewhere: in online databases, online exchanges of preprints, listservs and so on. Conventional publication in these disciplines adds little value to the work that has already been disseminated in other channels; rather it is a redundant process, undertaken to generate, in effect, a certified archival record of the work. Because the audience paying attention to the field has already seen and absorbed the work in on-line versions, the printed publication channel grows increasingly narrow consisting primarily of libraries who serve as the archival institutions. Because of the narrow market, costs and prices consequently rise on the supply side. On the demand side, libraries respond by cutting titles from their collections.

There is clearly little logic or economy in a process whereby scholars use printed publications to establish an archival record only to find that the institutions responsible for ensuring that the archive endures for future generations cannot afford to purchase the publications. Framed in this way, the problems in the scholarly communication system are archival problems, and a focus on tenure, the mechanics of print publication, electronic versions of print publications, and institutional retention of copyright is looking for solutions in all the wrong places—or at least not in some of the right places.

...[D]o we not also need to say bluntly that our own unwillingness or inability as archival institutions to provide a trustworthy archival record of substantially changed and changing intellectual activity is itself a critical barrier to the rehabilitation and renewal of a viable (read: affordable) system of scholarly communication?

The process of coming to terms with each other, with our academic colleagues and with publishers about the investment we must make in the system of scholarly communication and the savings that we must extract from that system is essentially a coming to terms about the centrality of archiving—the embalming of dead genius—in the pursuit of knowledge...

...As we contemplate the archiving of digital information, we have to understand that we are not seeking to fine tune some technical variables of a system that is already long in place. While the goals are ultimately the same, we are not placing brittle books under a microfilm camera in a well-defined process. Instead, we are faced with what the Task Force report calls "a grander problem of organizing ourselves over time and as a society to maneuver effectively in a digital landscape" (Task Force 1995: 4). The effort to meet the cultural and economic imperatives of digital preservation requires us to build, almost from scratch, a system of infrastructure for moving the record of knowledge naturally and confidently into the future.

– Donald J. Waters, Associate University Librarian, Yale University

[1] *Intellectual Property in the National Information Infrastructure,* Information Infrastructure Task Force, Executive Office of the President, September 1995 <URL:http://www.uspto.gov/web/ipnii>.

[2] *Preserving Digital Information. Draft Report of the Task Force on Archiving of Digital Information* commissioned by the Commission on Preservation and Access and The Research Libraries Group, August 24, 1995 <URL:http: www-rlg.stanford.edu/ArchTF/>.

Continued

NEH GRANTS

The following grants were awarded by the National Endowment for the Humanities.

UC–Berkeley: To support development and testing of computerized procedures for retrieving archival documents and photographic images via the Internet.

UC–Riverside: To support the addition of records to the North American Imprints Project.

Center for Research Libraries: To support preservation microfilming and cataloging of 8,000 volumes in major languages of western India held by the library of the University of Bombay for use by scholars in the U.S.

Chicago: To support cataloging, microfilming, and digitizing of deteriorated volumes relating to the history, art, archeology, languages, law, and religions of the ancient Near Eastern and Mediterranean regions.

Columbia: To support cataloging and preservation of material in the Joseph Urban Collection documenting theater arts during the first half of the 20th Century.

Cornell: To support microfilming, conservation, and cataloguing materials pertaining to Icelandic history, language, and literature from the sixteenth through the twentieth centuries.

Delaware: To support preservation microfilming in participation with the U.S. Newspaper Program; to support training of students specializing in the conservation of material culture collections.

Duke: To support cataloging, conservation, and conversion to digital format papyri dating from the 3rd Century B.C. to the 8th Century A.D.

Florida: To support cataloging and preservation microfilming of newsprint.

Harvard: To support preservation microfilming and documenting history of American business and education, Slavic history and culture, Western European history, and international law.

Illinois: To support preservation microfilming in participation with the U.S. Newspaper Program.

Johns Hopkins: To support preservation of and automated access to the Lester S. Levy Music Collection.

Maryland: To support preservation microfilming of and improved access to Japanese newspapers and newsletters published between 1945 and 1949 during the Allied Occupation.

Nebraska: To support preservation microfilming of material documenting Mari Sandoz's literary career and anthropological research about Native Americans.

New York Public: To support the arrangement and description of organizational records and personal papers documenting the post-civil rights era from 1958 to the present; to support arrangement and description of records, microfilm, and audiotapes from the publishing house of Farrar, Straus & Giroux, spanning the period from 1945 through 1980; to support preservation of the White Studio Collection consisting of images of theater and vaudeville performances in New York from 1904 to 1936.

Princeton: To support organization, description, and cataloging records of the Association on American Indian Affairs that provide a perspective of 20th Century Native American history.

Southeastern Library Network, Inc: To support preservation microfilming books and pamphlets on U.S. and Latin Americana, World War I, and the history of religion.

Tennessee: To support preservation microfilming in participation with the U.S. Newspaper Program.

Texas–Austin: To support preservation microfilming of Latin American Monographs in the Nettie Lee Benson Collection; to support preservation microfilming of newspaper titles.

Yale: To support preservation microfilming and improved access to volumes concerning the general history of the British Isles and the religious doctrines that originated there.

NEH RESTRUCTURES

The following is from an October 16th open letter describing a major restructuring of the National Endowment for the Humanities.

When adjusting to a budget reduction of almost forty percent, no program could remain untouched. Inevitably, we will have to fund fewer grants. We opted, however, not to weaken all our efforts by cutting equally across the board, but to give greater support to those activities that best meet our guiding tenets; that is, activities that are best done at the national level, that have long-term impact, that have few other sources of support, that strengthen the institutional base of the humanities, and that reach broad sectors of the American public.

We concluded that the Endowment should focus on the following areas:

- *supporting original scholarship,*
- *preserving the American cultural heritage,*
- *providing learning opportunities for the nation's teachers, and*
- *engaging the American public in the humanities.*

Reduced in size but not in commitment, we must go on, continuing the excellent work that the Endowment has done for the last thirty years, dedicated now more than ever to the mission bestowed on us by our enabling legislation: to help Americans "achieve a better understanding of the past, a better analysis of the present, and a better view of the future." The National Endowment for the Humanities is here to stay.

– Sheldon Hackney, Chairman, National Endowment for the Humanities

Mellon Continues Support for Latin American Project

The Andrew W. Mellon Foundation has made a generous grant of $125,000 to ARL for the second phase of the Latin Americanist Research Resources Pilot Project. Begun in 1994 with Mellon support, the project's overall goals are to broaden the array of Latin Americanist resources available to students and scholars, to restructure access to these collections on a comprehensive scale, and to assist libraries in containing costs. Originally envisioned as a pilot endeavor of twenty libraries, the project expanded rapidly during its first phase to include thirty-two ARL institutions. These libraries have jointly designed an organizational structure and implemented a system of coordinated collection management that utilizes advanced communication technologies to deliver Latin Americanist research materials, especially those that may be difficult to acquire. The most significant project accomplishment to date is an easily accessible Internet database that offers students and scholars the tables of contents of 300 academic journals from Argentina and Mexico that are not widely indexed. In addition, participating libraries have assumed collecting responsibilities for publications of non-governmental organizations from the two countries.

Phase two of the project will be completed between November-1995 and December 1996. An evaluation of the costs and benefits of the first phase will be completed, the cooperative collecting assignments will be refined and expanded, and efforts will be made to build partnerships with Latin American institutions. Mark Grover, Brigham Young University, will continue as Project Coordinator on a half-time basis.

The most important part of the second phase, however, will be to take a step toward full implementation of the distributed model that is the overall goal of ARL's global initiatives by analyzing the effect that such a model will have on the internal structure of libraries. Five "case study" libraries will address management, staffing, and economic issues, and will determine the intra-institutional and inter-institutional changes needed to realize the full benefits of sharing Latin Americanist research resources, in particular the potential cost savings. The ARL institutions that will pursue this analysis within a collaborative framework are the University of California at Berkeley, the University of Florida, Stanford University, the University of Texas, and Yale University. This stage of the project will also focus on the development of models for subsequent cooperative endeavors within the emerging networked environment.

– *Jutta Reed-Scott, ARL Senior Program Officer for Preservation and Collection Services*

OMS Publishes ILL Benchmarking Report

The ARL Office of Management Services is pleased to announce the publication of OMS Occasional Paper #18 *Benchmarking Interlibrary Loan: A Pilot Project*. This 30 page volume is a compilation of three reports on the ILL Benchmarking Project that was undertaken with support from the Council on Library Resources. This publication describes in detail the key elements to any successful benchmarking process while specifically examining interlibrary loan. The project itself tests the applicability of benchmarking methodologies and performance measure indicators, better known in the for-profit arena, to the academic library environment.

Included are the actual CLR grant proposal by Susan Jurow, OMS Director; an overview of the outcomes by Jack Siggins, University Librarian, George Washington University; and the complete benchmarking methodology by Nancy Kaplan, a Director with International Systems Services Corporation.

Occasional Papers are $25 ($18 ARL members); plus $5 for shipping and handling per publication. For information on this and other OMS products, contact the ARL Publications Department at (202) 296-2296 or email arlhq@cni.org. Send prepaid orders to ARL Publications, Dept. #0692, Washington, DC 20073-0692.

– *Laura Rounds, OMS Program Officer for Information Services*

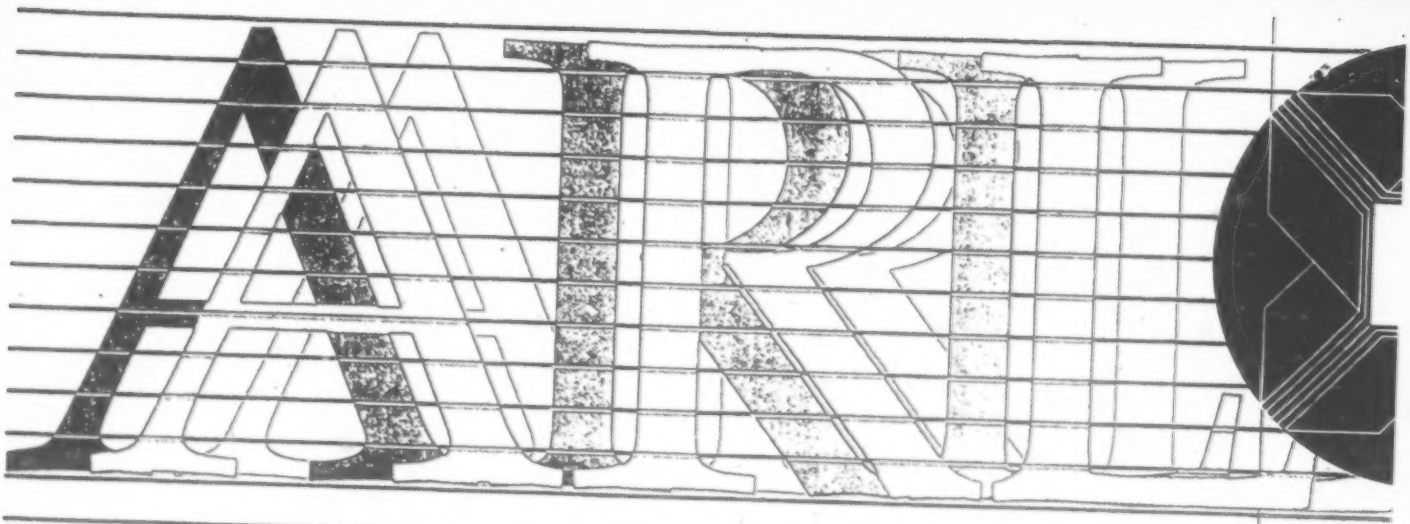
Transitions

Alberta: Ernie Ingles was appointed Executive Director of Learning Systems. In his new position, Mr. Ingles assumes responsibility for Computing and Network Services, the University Bookstore, and Technical Resource Group and Printing Services. The Library System, Museums and Collections Services, the University Archives, University Information Enterprises, and the University Press will also report to Mr. Ingles.

Cornell: Alain Seznec has announced his plan to retire from his position as University Librarian effective June 30, 1996 and return to the Cornell faculty.

New York Public: William Walker was named Senior Vice President and The Andrew W. Mellon Director of the Research Libraries.

SUNY at Stony Brook: John B. Smith announced he will step down as Director and Dean of University Libraries June 30, 1996, to pursue other professional interests within the University.



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CALENDAR 1996

January 19-25	American Library Association San Antonio, TX
February 8-9	**ARL Board Meeting** **Washington, DC**
March 25-26	Coalition for Networked Information Spring Task Force Meeting Washington, DC
May 6-7	U.S. National Library Legislative Day and Briefings Washington, DC
May 14-17	**ARL Board and Membership Meeting** **Vancouver, British Columbia** **Canada**
July 4-10	American Library Association New York, NY
July 29-30	**ARL Board Meeting** **Washington, DC**
August 25-31	International Federation of Library Associations Beijing, China
October 13-16	LITA/LAMA National Conference Pittsburgh, PA
October 15-18	**ARL Board and Membership Meeting** **Washington, DC**

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http://arl.cni.org

Federal Relations Notebook Updates
gopher://arl.cni.org:70/11/info/frn

OMS Training and Organizational Development Program
http://arl.cni.org/training/basicOMS.html

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